

Draft Resource Management Plan  
for  
**Sycamore Canyon & Goodan Ranch Preserves**  
**San Diego County**



May 2009



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## **APPENDICES**

- Appendix A Baseline Biological Resources Evaluation, Sycamore Canyon and Goodan Ranch Preserves
- Appendix B Cultural Resources Phase I Survey and Inventory, Sycamore Canyon and Goodan Ranch Preserves, San Diego County, California

## **1.0 INTRODUCTION**

The 1,954 acre Sycamore Canyon and 318 acre Goodan Ranch Preserves (Preserves) are adjacent to one another and are located just east of the Marine Corps Air Station (MCAS) Miramar and approximately two miles north of Santee (Figure 1). Sycamore Canyon Preserve was acquired by the County during the time period 1964-2004. Goodan Ranch was acquired jointly by the California Department of Fish and Game, County of San Diego Department of Parks and Recreation, and the Cities of Poway and Santee in 1991. Both Preserves were acquired for inclusion in the South County Multiple Species Conservation Program (MSCP) preserve system. The Preserves consist of very high to medium quality native habitats, as well as areas that have been marginally impacted by human activities including two staging areas, ranger station, and trail system.

### **1.1. Purpose of Management Plan**

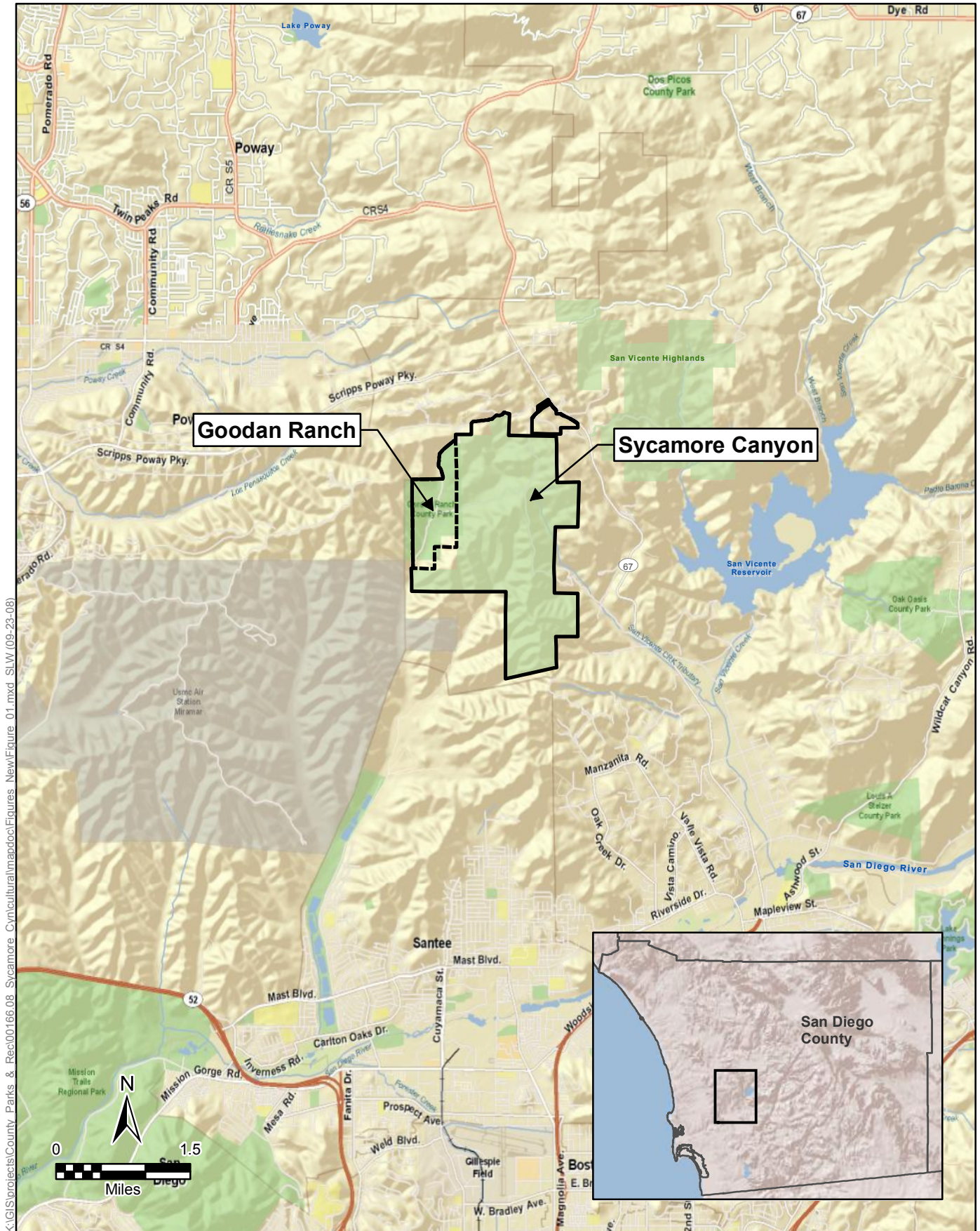
This Resource Management Plan (RMP) has been prepared as a guidance document to manage and preserve the biological and cultural resources within both Preserves, and to provide Area-Specific Management Directives (ASMDs) pursuant to the requirements of the County's Multiple Species Conservation Program (MSCP) Subarea Plan (County, 1997) and Sections 10.9A and 10.9B of the Framework Management Plan (County 2001). These sections specify that the County will be responsible for managing lands which it owns or acquires within the MSCP preserve system.

This RMP will:

- a) guide the management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values;
- b) serve as a guide for appropriate public uses of the property;
- c) provide a descriptive inventory of the vegetation communities/habitats, plant and animal species, and the archaeological and/or historical resources that occur on this property, and;
- d) establish the baseline conditions from which adaptive management will be determined and success will be measured; and provide an overview of the operation and maintenance requirements to implement management goals.

Chapter 5 of this RMP includes ASMD's for Sycamore Canyon/Goodan Ranch Preserves.

It is recognized that the County owned land is only a small portion of the MSCP preserve system. The County does ensure management of other lands that are dedicated as a conservation easement for discretionary project mitigation, through requiring land developers to prepare Resource Management Plans. The County will spearhead a larger coordinated effort to ensure that other conserved lands in the area that make up the MSCP Preserve are also being monitored and managed



SOURCE: ESRI Street Map (2008)

**Figure 1**  
**Regional Location Map**  
**Sycamore Canyon and Goodan Ranch Preserves**



consistent with this RMP and the overall goals of the MSCP Plan and County's MSCP Subarea Plan when a regional funding source is identified pursuant to Section 10.9C of the Framework Management Plan.

### **1.1.1 MSCP Background**

The MSCP is a cooperative habitat program that encompasses 582,000 acres and establishes a 172,000-acre preserve system in southwestern San Diego County. The MSCP covers 85 plant and animal species and 23 vegetation communities. Agencies participating in the MSCP include the County, other local jurisdictions, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). Local jurisdictions and special districts implement their respective portions of the MSCP Plan (City of San Diego 1998) through Subarea plans, which describe specific implementing mechanisms for the MSCP. The combination of the subregional MSCP Plan and Subarea plans serve as a Multiple Species Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA), the Natural Community Conservation Planning (NCCP) Program pursuant to the California NCCP Act of 1991 and the California Endangered Species Act (CESA). Sycamore Canyon Preserve is owned and operated by the County. Goodan Ranch Preserve is owned jointly by the California Department of Fish and Game, DPR, and the Cities of Poway and Santee. Both Preserves are included under the County of San Diego South County MSCP Subarea Plan (County of San Diego 1997).

### **1.1.2 County Subarea Plan**

The South County MSCP Subarea Plan (MSCP Subarea Plan) was adopted in October 1997. The MSCP Subarea Plan is subdivided into three segments: Lake Hodges, South County, and Metro-Lakeside-Jamul, with Sycamore Canyon/Goodan Ranch Preserves located in the latter segment. In this segment, preserve boundaries were not designated; rather, pre-approved mitigation areas consisting of high-value habitats were identified and a set of preserve design goals and criteria for cores and linkages were established for consideration during project review.

### **1.1.3 Framework Management Plan and Area-Specific Management Directives**

According to Section 6.3.1 of the MSCP Plan and as a condition of the Implementing Agreement with the Wildlife Agencies (Section 10.10), the County was required to prepare a Framework Management Plan for the portion of the MSCP Preserve within the MSCP Subarea Plan's boundaries. The document was submitted to the Wildlife Agencies on August 31, 2001. The Framework Management Plan sets forth management goals and objectives, along with general management directives that apply to all areas of the MSCP Subarea Plan.

The Framework Management Plan also incorporates a requirement for the subsequent preparation and implementation of ASMDs. These directives are required to be developed following baseline surveys using generally accepted

practices and procedures for management of biological preserves, and in compliance with the criteria established by the Framework Management Plan. They are intended to be specific management actions that are appropriate for the habitats and species found in a local area and take into account the particular circumstances of the given area. In addition to addressing the general directives of the Framework Management Plan and species-specific management requirements of MSCP Table 3-5, ASMDs are required to address fuel management activities.

## **1.2. Implementation**

### **1.2.1 Management Approach**

A key concept of the MSCP is the use of “Adaptive Management Techniques” directed at the conservation and recovery of individual species. This term refers to modifying management actions when monitoring of the resources indicates that changes are needed. It is particularly useful where there is uncertainty regarding the efficacy of certain management measures and/or the needs of target species. Adaptive management and an associated monitoring program are designed to inform land managers of the status and trends of covered species, natural communities, and landscapes in a manner that provides data to allow informed management actions and decisions.

It is anticipated that the recommended management actions provided in this RMP will be dynamic in nature. Applying adaptive management, the effectiveness and appropriateness of recommended management actions would be determined through review of management goal and objective achievement so that changes can be made to management directives and implementation measures as needed. Adaptive management techniques depend upon the specific issues impacting the resources. Therefore, the techniques herein may be subject to change or revisions when applied. Additionally, the monitoring protocols/requirements for MSCP covered species and habitats will be revisited periodically by participants of the MSCP and are subject to change based on adoption of updated protocols. It is anticipated that this RMP will be revised once every five years, as needed. The RMP may be revised on a shorter time scale if there is a change in circumstance, for example, acquisition of additional Preserve land.

### **1.2.2 Responsible Parties/Designation of Land Manager**

The County is responsible for management, biological monitoring, and meeting the conditions of MSCP coverage on County-owned lands conserved as part of the MSCP Preserve system. Sycamore Canyon Preserve is fully owned and operated by the County Department of Parks and Recreation (DPR). Goodan Ranch Preserve is owned jointly by DPR, California Department of Fish and Game, City of Poway, and City of Santee. Through a Joint Powers Agreement (November 1995) DPR is identified as responsible for management of the property in cooperation with all parties. Both Preserves will be managed together under one DPR District Park

Manager. This District Park Manager will be considered the land manager. DPR (District Park Manager and staff of Resource Management Division) will be responsible for the implementation and enforcement of the RMP.

The Preserves are located in the management district of one supervising park ranger, half time park ranger, one park maintenance worker, and 2.5 park attendants. The Preserves are patrolled every day. It is expected that many of the implementation measures, especially the maintenance tasks, will be carried out by the rangers who are most familiar with the site and currently patrol the Preserves.

### **1.2.3 Regulatory Context**

The County's park rangers manage County parks and enforce preserve rules and regulations pursuant to San Diego County Code of Regulatory Ordinances Title 4, Division 1, Chapter 1 County Parks and Recreation. In addition, per County Code of Regulatory Ordinance Sec 41.111, 41.112, 41.113, all wildlife, plant, historical artifacts, and geologic features are protected and are not to be damaged or removed. Any person who violates any provision of Sections 41.111, 41.112, 41.113 is guilty of a misdemeanor as provided in Sections 11.116, 11.117, and 11.118 of this Code, punishable by fines up to \$2,500 a day for each day the person violates these sections. The park rangers will contact law enforcement who will cite the offending individual. In addition, if an individual does not comply with signs within a facility and ignores park ranger instructions, the individual could potentially be charged with a misdemeanor by law enforcement.

### **1.2.4 Limitations and Constraints**

Implementation and the timing of many of the management directives will be based on funding in any fiscal year and will be determined through the DPR Operations Division who will prioritize preserve needs in their work plan for the fiscal year based on the priority of the directives in the RMP for each preserve.

## **2.0 PROPERTY DESCRIPTION**

### **2.1 Legal Description**

The Preserves are within the USGS 7.5' San Vicente Reservoir Quadrangle, the contiguous Preserves, together, include portions of Sections 21, 22, 23, 26, 27, 28, 33, 34, and 35 of Township 14 S, Range 1 W, and of Sections 2 and 3 of Township 15 S, Range 1 W (Figure 2). The Assessor's Parcel Numbers for the Preserves are 323-111-04; 324-040-41; 324-040-42; 324-040-46; 324-040-50; 324-041-01; 324-041-02; 324-050-28; 325-020-01; 325-020-03; 325-060-01; 325-060-02; 325-060-03; 326-021-02; 326-050-18, and; 326-070-01.

## **2.2 Geographical Setting**

The natural setting of the Preserves is characterized by foothill uplands with narrow ridgelines separated by numerous steep canyons, ravines, and drainages.

Specifically, the western edge of the Goodan Ranch Preserve is bounded by the Sycamore Canyon drainage with the Sycamore Canyon Preserve extending east to across a ridgeline system to Slaughterhouse Canyon (Figure 2). Elevations range between approximately 466 m (1,530 ft) above mean sea level (AMSL) at the northeastern edge of the Sycamore Canyon Preserve to approximately 195 m (640 ft) AMSL in the southwestern corner of the study area along the southern portion of Sycamore Canyon in the Goodan Ranch Preserve.

### **2.2.1 Site Access**

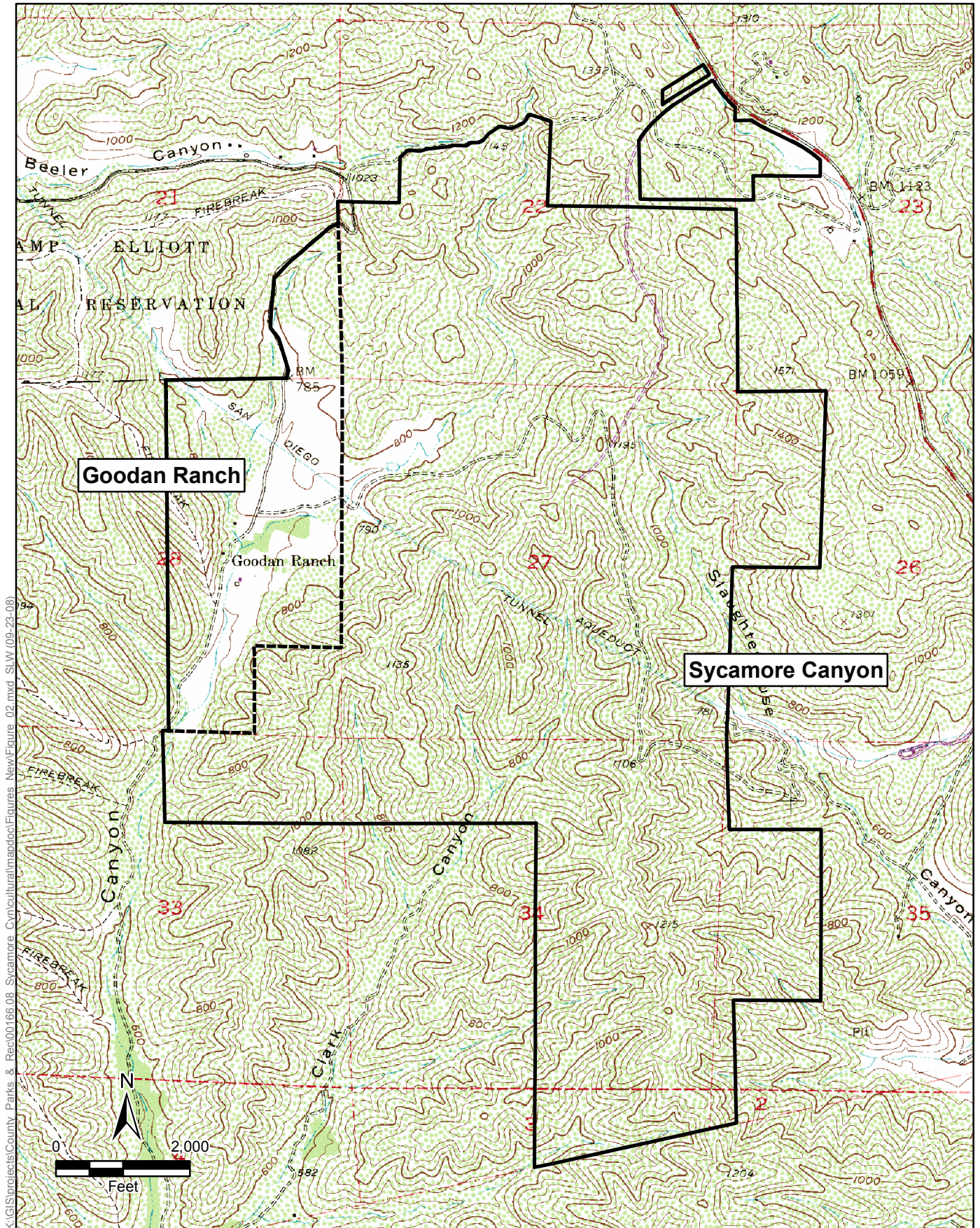
The northern area of the Sycamore Canyon Preserve can be accessed via a staging area located off of Sycamore Canyon Road (Figure 6). A pull-out area is located off of State Route 67 that provides access from the northeastern area of Sycamore Canyon Preserve. The graded dirt roads throughout the Preserves act as service roads and trails. The service roads are utilized by park rangers for patrolling and traverse the Preserves from the northern and northeastern boundary to the western boundary. A trail/service road extends to the southern boundary of Sycamore Canyon Preserve.

Gates have been placed in the following locations within the Preserves (Figure 6): (1) staging area located off of Sycamore Canyon Road; (2) access point at State Route 67; (3) southern border of Preserve; (4) two gates are located in the northeastern area of the Preserve associated with a private road crossing this area; (5) off of southern trail blocking access to a private road that extends to the eastern border; (6) two gates are located in the interior of the Preserve blocking public vehicle access to trails; (7) northwestern corner of Preserve; and (8) southwestern border of Preserve.

### **2.2.2 MSCP Context**

The Preserves are included within the North Metro-Lakeside-Jamul segment of the MSCP Subarea Plan and is designated as Pre-Approved Mitigation Area (PAMA). To the east of Sycamore Canyon Preserve are lands also designated as MSCP South County Subarea Plan PAMA and lands designated as Unincorporated Land in the Metro-Lakeside-Jamul Segment (Figure 3). Open space properties are located to the west within the City of Poway and to the south within the City of Santee.



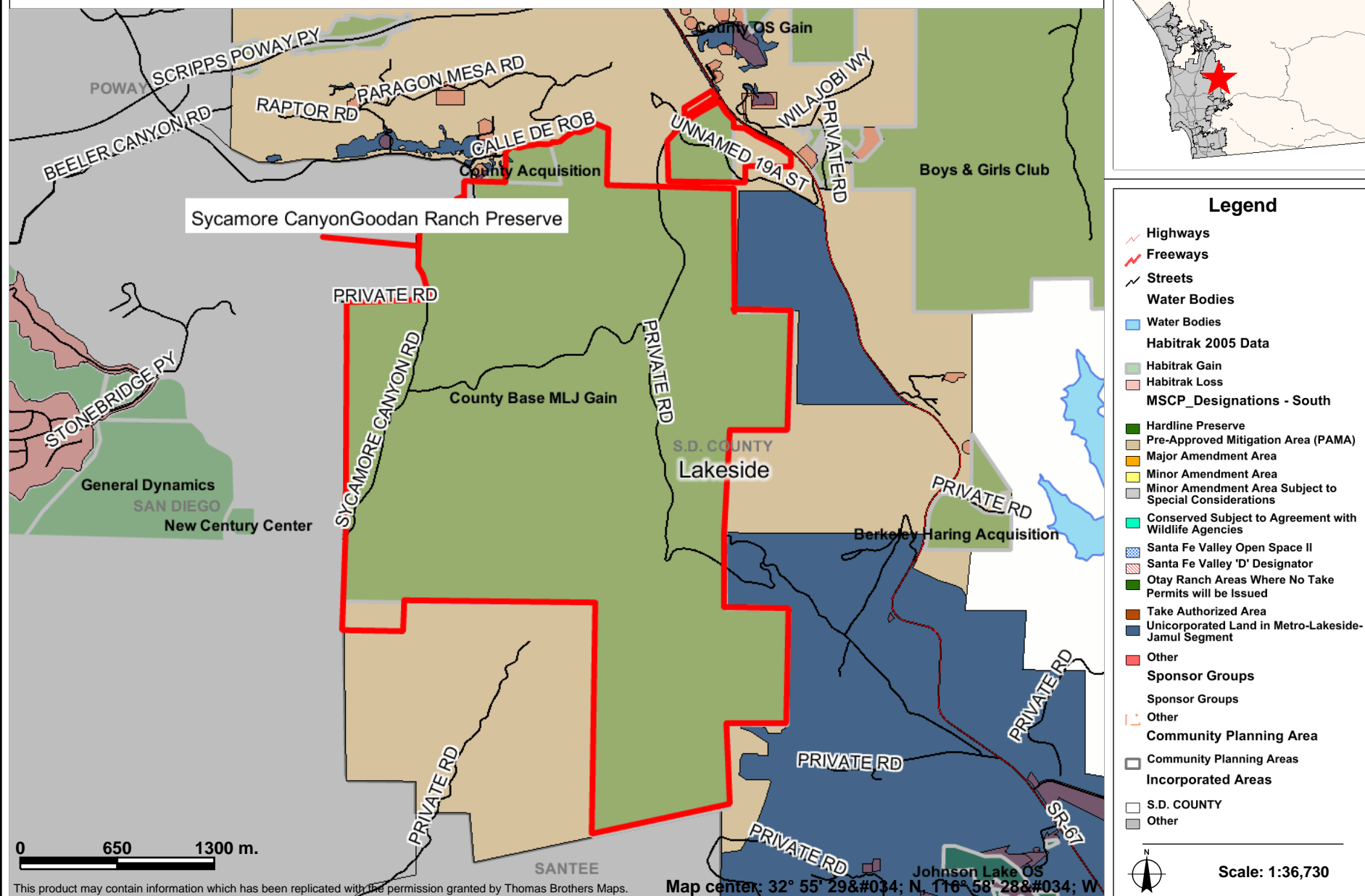


SOURCE: USGS 7.5' Quadrangle: 1955 San Vicente Reservoir (Photorevised 1971)

**Figure 2**  
**Project Vicinity Map**  
**Sycamore Canyon and Goodan Ranch Preserves**



**Figure 3. MSCP Designations and Adjacent Conserved Lands**



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## **2.3 Physical and Climatic Conditions**

### **2.3.1 Geology and Soils**

The Preserves are situated atop three distinct geologic categories of bedrock: pre-Cretaceous metamorphic rocks, Cretaceous granitic rocks, and Eocene sedimentary rocks. The pre-Cretaceous metamorphic and Cretaceous granitic bedrock is present mostly in the north and eastern areas of the Sycamore Canyon Preserve, while the Eocene, sedimentary Poway Conglomerate Formation is present in the central and southwestern area of the Sycamore Canyon Preserve, and over most of the Goodan Ranch Preserve property. The pre-Cretaceous rocks consist of various metamorphic types. The granitic rocks, consisting of granite, granodiorite, and gabbro, are part of the southern California batholith in the area. The Poway Conglomerate Formation, which overlies these granitic and/or metamorphic rocks is now recognized as consisting of several distinct formations including the Stadium Conglomerate, the Mission Valley Formation, and the Pomerado Conglomerate (Kennedy and Peterson 1975). Now referred to as the Poway Group, these formations variously contain rounded-cobble conglomerate and sandstone with lesser occurrences of siltstone and mudstone. Also present in the broad valley along upper Sycamore Canyon within the Goodan Ranch Preserve area are more recent sediments of Pleistocene and/or Holocene age (Strand 1962; Weber 1963).

Several general soil associations are represented within the Preserves: Arlington, Escondido, Friant, Huerhuero, Metamorphic rock land, Olivenhain, Redding, Stony land and Visalia (Figure 4) (USDA 1973).

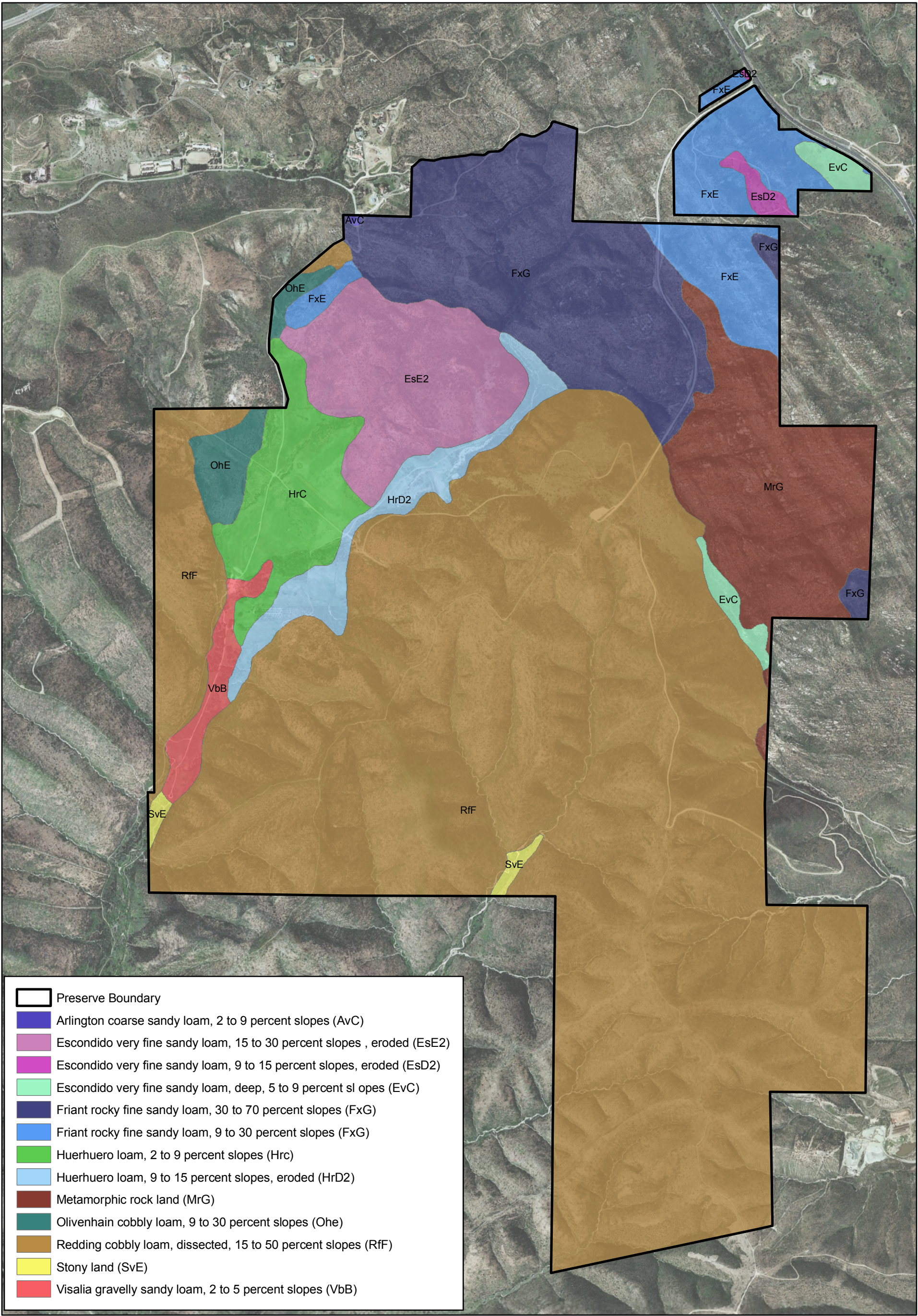
#### **Arlington**

This soil series is characterized as moderately well drained moderately deep coarse sandy loams and is usually found on alluvial fans with slopes ranging from 2 to 9 percent. It is found at elevations ranging from 122–335 m (400–1,100 ft). The surface layer is brown in color and coarse sandy loam in texture. The subsoil is yellowish-brown, brown, and light yellowish-brown in color and slightly acidic. The substratum extends to a depth of 122 centimeters (cm) [48 inches (in)] and is weakly cemented, slightly acidic coarse sandy loam. The specific soil type found in the Preserves is Arlington coarse sandy loam (2 to 9 percent slopes). This soil type only occurs within the northeastern most portion of the Preserves and supports southern mixed chaparral.

#### **Escondido**

This soil series is characterized by moderately deep to deep, well drained fine sandy loams and are usually found in uplands at elevations ranging from 122–853 m (400–2,800 ft). The surface layer is dark brown very fine sandy loam that is usually 15 cm (6 in) thick and slightly acidic. The subsoil is brown very fine sandy loam that is usually 58 cm (23 in) thick and neutral. The layer below this consists of metasedimentary rock. The specific soil type found in the Preserves is Escondido







very fine sandy loam (5 to 9 percent slopes, 9 to 15 percent slopes and 15 to 30 percent slopes). Within the Preserves this soil type supports southern mixed chaparral and non-native grassland and sensitive plant species San Diego thornmint, Palmer's grappling hook, California adder's tongue, and small flowered morning glory.

#### Friant

This soil series is characterized by very shallow to shallow, fine sandy loams and are usually found on mountainous uplands at elevations ranging from 152–1,067 m (500-3,500 ft). The surface layer is usually 30 cm (12 in) thick and slightly acidic. The layer below this consists of metasedimentary rock. Boulders and rock outcrops are present. The specific soil type found in the Preserves is Friant rocky fine sandy loam (9 to 30 percent slopes and 30 to 70 percent slopes). Within the Preserves this soil type primarily supports southern mixed chaparral and sensitive plant species San Diego thornmint.

#### Huerhuero

This soil series consists of moderately well drained loams that have a clay subsoil. These soils developed in sandy marine sediment and are typically found on slopes ranging from 2 to 30 percent with elevation ranging from 3 to 122 m (10 to 400 ft). In a representative profile the surface layer is brown and pale-brown, strongly acid and medium acid loam about 30.48 cm (12 in) thick. The upper part of the subsoil is brown, moderately alkaline clay and extends to a depth of about 104.14 cm (41 in). Below this, and extending to a depth of more than 152.4 cm (60 in), is a brown, mildly alkaline clay loam and sandy loam. The specific soil type found in the Preserves is Huerhuero loam (2 to 9 percent slopes and 9 to 15 percent slopes). Within the Preserves, this soil type supports southern mixed chaparral, non-native grasslands, disturbed freshwater marsh and southern coast live oak riparian woodland. Sensitive plant species found on this soil type include graceful tarplant.

#### Metamorphic rock land

This soil type occurs in excessively drained hilly to mountainous areas. Fifty to 90 percent is exposed rock outcrops, angular stones and cobblestones. There is 25 cm (10 in) or less of soil material that consists of very fine sandy loam to silt loam. Within the Preserves, this soil type supports southern mixed chaparral and the sensitive plant species Palmer's sagebrush.

#### Olivenhain

This soil series is characterized by well drained, moderately deep to deep cobbly loams and is usually found on slopes ranging from 2 to 50 percent. It is found on dissected marine terraces at elevations ranging from 30–183 m (100–600 ft). The surface layer is usually 25 cm (10 in) thick and moderately acidic. The topsoil is

brown and reddish-brown and cobbly loam in texture. The subsoil is reddish-brown, red, and pink in color, strongly acidic, very cobbly clay and clay loam and is about 81 cm (32 in) thick. The substratum is pinkish-white in color and strongly acidic. Runoff is medium to rapid and the erosion hazard is moderate to high. The specific soil type found in the Preserves is Olivenhain cobbly loam (9 to 30 percent slopes). Within the Preserves this soil type supports southern mixed chaparral and sensitive plant species San Diego thornmint.

### Redding

This soil series is characterized by well drained, undulating to steep gravelly loams and is usually found on slopes ranging from 2 to 20 percent. It is found on dissected terraces at elevations ranging from 61–152 m (200–500 ft). The surface layer is usually 38 cm (15 in) thick and medium to strongly acidic gravelly loam. The subsoil is yellowish-red and red in color, very strongly acidic, gravelly heavy clay loam and gravelly clay and is about 76 cm (30 in) thick. Below this is iron-silica cemented hardpan. The specific soil type found in the Preserves is Redding cobbly loam, dissected (15 to 50 percent slopes). Within the Preserves this soil type primarily supports southern mixed chaparral. Sensitive plants found on this soil type include willowy monardella, San Diego thornmint, small flowered morning glory, Palmer's grappling hook, California adder's tongue, and variegated dudleya.

### Stony Land

Stony land occurs at the base of cliffs or below steep rocky slopes. The material consists of many stones, in many places there are large boulders 0.9 to 1.8 m (3 to 6 ft) in diameter on the surface. This soil type is found within the southern portion of the Preserves and is associated with openings in southern mixed chaparral and southern coast live oak riparian woodland.

### Visalia

This soil series is characterized by moderately well drained, very deep sandy loams and is usually found on slopes ranging from 0 to 15 percent. It is found on alluvial fans and floodplains at elevations ranging from 122 – 610 m (400-2,000 ft). The surface layer is usually 30.5 cm (12 in) thick and slightly acidic. The topsoil is dark grayish-brown in color and sandy loam in texture. The subsoil is dark grayish-brown, slightly acidic, sandy loam and loam and is more than 152.4 cm (60 in) thick. Runoff is very slow to medium and the erosion hazard is slight to moderate. The gravelly sandy loam consists of approximately 15 percent gravel. The specific soil type found in the Preserves is Visalia gravelly sandy loam (3 to 5 percent slopes). Within the Preserves this soil type occurs within the developed lands associated with the visitor center and within the southern coast live oak riparian woodland located in the southwestern most portion of the Preserves.

### **2.3.2 Climate**

A semi-permanent, Pacific high-pressure cell, located over the Pacific Ocean, dominates San Diego County's climate. This cell drives the dominant on-shore circulation, maintaining clear skies for much of the year. Summers in the Preserves are typically warm and dry, while winters are mild with occasional rain (USDA 1973).

The Western Regional Climate Center, a collaborative project of the National Oceanic and Atmospheric Agency and the Desert Research Institute, maintains a climatic station in El Cajon – the closest such station to the Preserves. Data collected at the station indicate that the area experiences a normal mean temperature of approximately 65 degrees Fahrenheit (°F), with a mean maximum temperature of 77.8°F and a mean minimum of 52.4°F. The El Cajon area tends to experience more sunshine than the coastal regions of southern California due to its inland location. In a normal year, precipitation on the Preserves averages 12 inches and falls mostly in the winter and spring (San Diego County Flood Control District 2007).

A predominant feature of the local climate is the sea-breeze/land-breeze cycle. During the daytime, particularly in the summer, on-shore winds move inland with speeds of approximately seven to ten miles per hour (mph). Easterly land breezes of approximately two to four mph often occur at night. Surrounding rugged terrain, which induces turbulence into the airflow, modifies the influence of this cycle. This cycle is also periodically affected by land airflow that dominates weather patterns. The most widely recognized of these are the Santa Ana conditions, during which strong, hot and dry easterly winds prevail for two- or three-day periods.

### **2.3.3 Hydrology**

The Preserves are situated within the San Diego River Watershed. Designated beneficial uses for the San Diego River and its tributaries include municipal and domestic supply; agricultural supply; industrial service supply; industrial process supply; contact and non-contact water recreation; warm freshwater habitat; cold freshwater habitat; wildlife habitat; and rare, threatened, or endangered species habitat (California Regional Water Quality Control Board San Diego Region 2003). Several seasonal streams generally drain water from north to south towards the San Diego River (Figure 5).

### **2.3.4 Fire History**

According to the County fire burn data, the majority of the Preserves burned in the 2003 Cedar Fire; the northeastern portion of the Preserves also burned in 1985 (SanGIS 2008) (Figure 5).

The Preserves are located in the jurisdiction of the California Department of Forestry and Fire Protection (CAL FIRE).



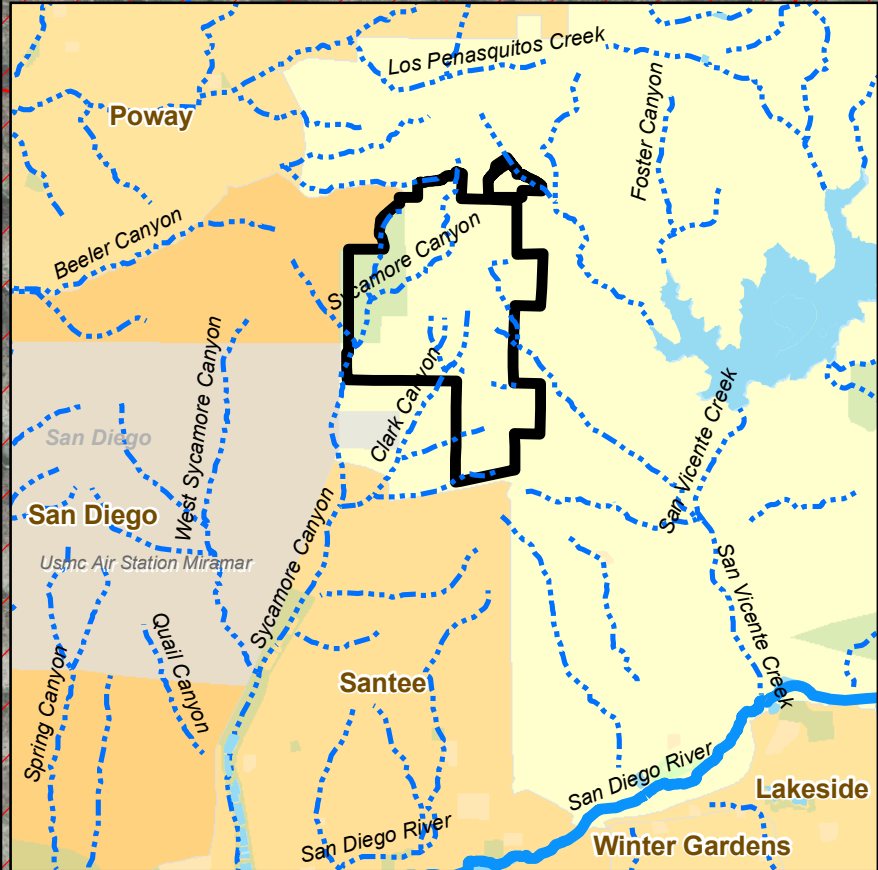
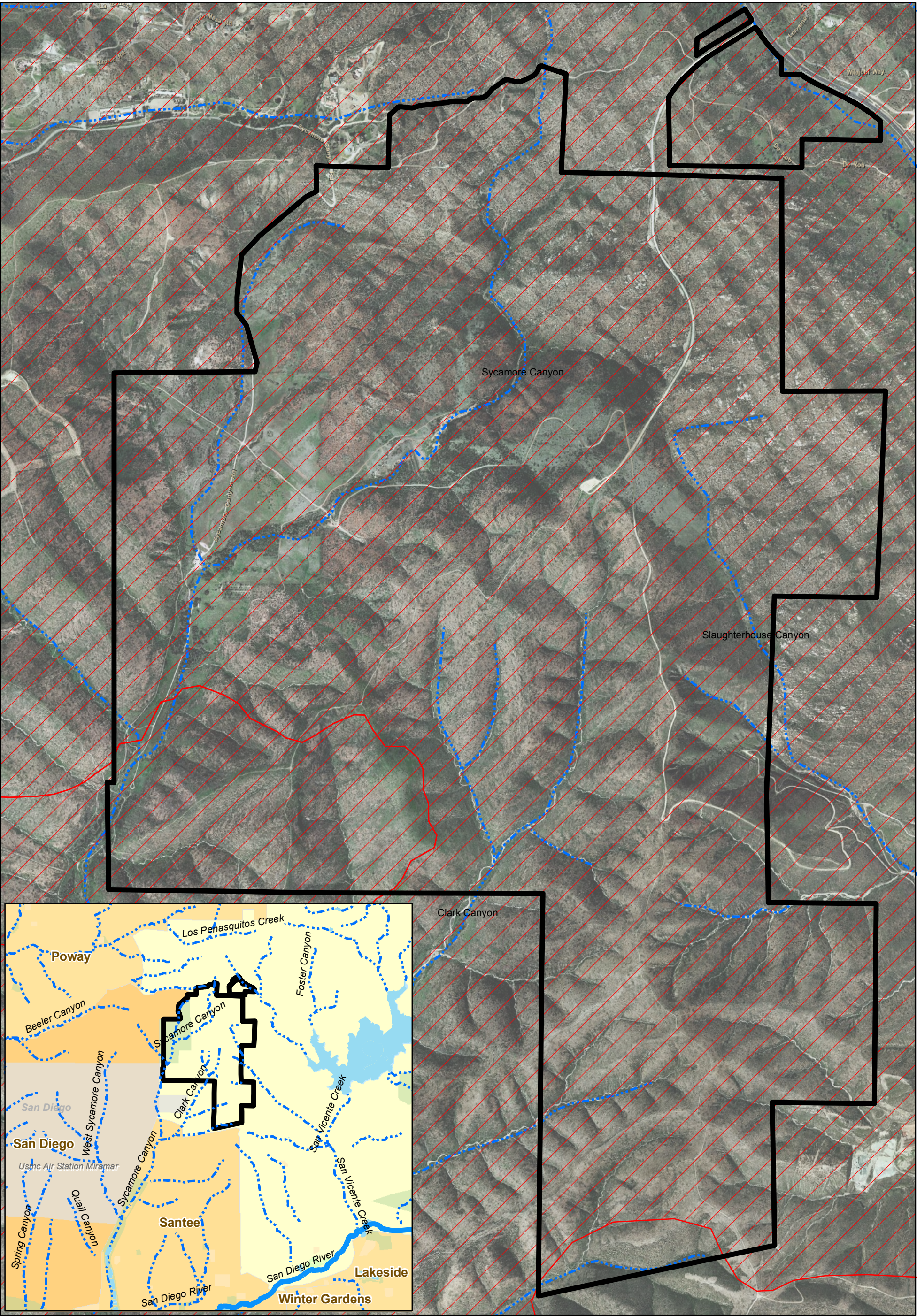


Figure 5  
Hydrology & Fire History Map  
Sycamore Canyon & Goodan Ranch Preserves



## **2.4 Land Use**

### **2.4.1 On-Site Land Use**

A 13 mile multi-use (hiking, biking, and equestrian use) trail extends north-south across the Preserves originating from a staging area located off of Sycamore Canyon Road in the northern section of the Preserve. A second staging area is located in the center portion of Sycamore Canyon Preserve that is accessed from the State Route 67 entrance.

### **2.4.2 Adjacent Properties**

The Preserves lie approximately one mile west of the northernmost portion of San Vicente Reservoir. Open space surrounds the Preserves with scattered rural residences to the northwest and mining operations to the southeast in Slaughterhouse Canyon. Privately owned open space land located to the west of the Preserve is within the City of Poway and to the south, within the City of Santee. Open space property to the southwest of the Preserve is owned by Marine Corps Air Station (MCAS) Miramar.

### **2.4.3 Easements or Rights**

Several easements are present within the Preserves. San Diego County Water Authority retains an easement across the Preserves for water pipelines from San Vicente Reservoir. San Diego Gas & Electric (SDG&E) retains a 100-foot wide electric transmission easement (consisting of three separate easements) running along the northern edge of the northeast portion of Sycamore Canyon Preserve. Approximately eight transmission structures are located adjacent to Sycamore Canyon Preserve. The easements allow for SDG&E ingress/egress rights via access roads to this easement. The proposed Sunrise Powerlink will be located within this 100-foot transmission easement. Distribution poles/conductors with a 12-foot easement run from the northwest corner of Sycamore Canyon Preserve southwest to the ranger station on the Preserve.

## **2.5 Trails**

The Preserve contain approximately 13 miles of multi-use trails. These trails traverse through non-native grassland, southern mixed chaparral and the understory of the oak woodland habitat (Figure 6). Trail users typically consist of hikers, mountain bikers and equestrian riders. In addition to the trails, two staging areas are located within Sycamore Canyon Preserve. One staging area is located at the southern end of Sycamore Canyon Road and the second staging area occurs within the central portion of Sycamore Canyon Preserve accessed from a dirt service road off of State Route 67. The Trans County Trail system crosses Sycamore Canyon Preserve north to south. The on-site trails ending at the southern and western boundaries of the Preserves do not connect to designated trail systems. Utility roads located along the northeastern portion of Sycamore Canyon Preserve are maintained and used by the San Diego County Water Authority and San Diego Gas & Electric.



Path: E:\MXDs\09\09 04 RMP GoodanSycamore.mxd, 05/21/09, ekochert

### **3.0 BIOLOGICAL RESOURCES DESCRIPTION**

In 2008 Jones & Stokes Associates, Inc. conducted baseline biological resources surveys of the Preserve. The results of these surveys can be found in the biological resources report entitled, *Baseline Biological Resources Evaluation, Sycamore Canyon and Goodan Ranch Preserves*, dated December 2008, and attached as Appendix A. The survey results were used in the preparation of this RMP.

The surveys documented 10 vegetation communities and 483 species within the Preserves. The surveys detected 313 plant species, 73 bird species, 30 mammal species (11 bats, ten small mammals, and nine medium and large mammals), 18 herptiles (two amphibian and 16 reptiles), and 46 invertebrate species. This list includes 32 special-status species of which 12 are MSCP-covered species (nine wildlife and three plants). Three additional reptile species and one additional mammal species were detected by park rangers in 2008. Of these four species, three are sensitive and one is an MSCP-covered species (mountain lion).

#### **3.1 Vegetation Communities/Habitat**

Vegetation communities and land cover types present within the Preserve consist of southern mixed chaparral, coastal sage-chaparral scrub, non-native grassland, native grasslands, southern coast live oak riparian forest, coast live oak woodland, open coast live oak woodland, disturbed freshwater marsh, developed lands and disturbed habitat (Table 1, Figure 7). A description of the vegetation communities and the dominant plant species detected during the survey are found below. A complete list of plant species observed within the Preserve is provided as Appendix A. A description of the vegetation communities and the dominant plant species detected during the survey are found below.

**Table 1. Vegetation Communities within the Preserve**

<b>Vegetation Community</b>	<b>Acres</b>
Southern Mixed Chaparral	1,830.3
Coastal Sage - Chaparral Scrub	126.5
Non-native Grassland	199.3
Native Grassland	55.8
Southern Coast Live Oak Riparian Forest	25.3
Coast Live Oak Woodland	3.0
Open Coast Live Oak Woodland	6.5
Disturbed Freshwater Marsh	1.9
Developed	3.5
Disturbed Habitat	20.2
<b>TOTAL</b>	<b>2,272.3</b>

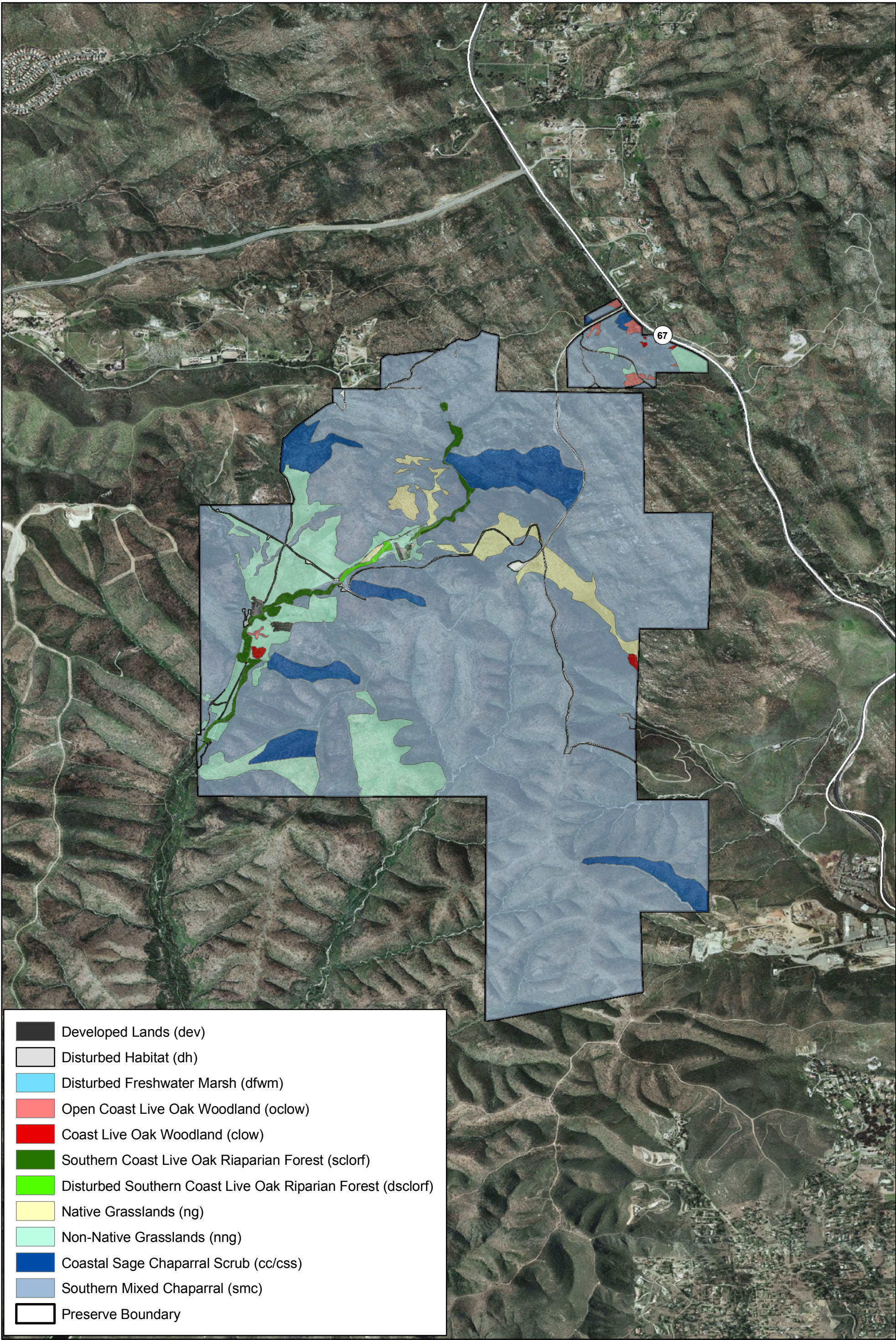
Southern Mixed Chaparral (Holland Code 31720)

Southern mixed chaparral is a broad-leaved sclerophyll shrub community forming dense often impenetrable vegetation dominated by Chamise (*Adenostoma fasciculatum*), Mission Manzanita (*Xylococcus bicolor*), Lilac (*Ceanothus oliganthus*), Scrub Oak (*Quercus berberidifolia*); and Manzanita (*Arctostaphylos glauca*). Other species observed during the field surveys included Ramona Lilac (*Ceanothus tomentosus*), Laurel Sumac (*Malosma luarina*), Mexican Elderberry (*Sambucus mexicanus*), Poison Oak (*Toxicodendron diversilobum*), Sugar Bush (*Rhus ovata*), Toyon (*Heteromeles arbutifolia*), Dwarf Plantain (*Plantago erecta*), Owl's Clover (*Castilleja exserta*); and Goldfields (*Lasthenia californica*). Southern mixed chaparral is the most abundant vegetation community within the Preserves.

Coastal Sage-Chaparral Scrub (Holland Code 37600)

Coastal sage-chaparral scrub consists of a mixture of herbaceous and shrubby species that forms a vegetation community with characteristics of both coastal sage scrub and chaparral. Within the Preserves this community appears to be a post-fire successional community. Dominant species within this vegetation community include Spiny Redberry (*Rhamnus crocea*), Chamise, Black Sage (*Salvia mellifera*), California Buckwheat (*Eriogonum fasciculatum*), California Sagebrush (*Artemisia californica*), Foxtail Chess (*Bromus madritensis*), Slender Wild Oat (*Avena barbata*), Deerweed (*Lotus scoparius*), Golden Bush (*Hazardia squarrosa*), White Sage (*Salvia apiana*), and Short-pod Mustard (*Hirschfeldia incana*). Coastal sage-chaparral scrub primarily occurs on south facing slopes within the Preserves.





SOURCE: ESRI Imagery



0 1,000 2,000  
Feet

Figure 7  
Vegetation Communities  
Sycamore Canyon & Goodan Ranch Preserves



### Non-Native Grassland (Holland Code 42200)

Non-native grassland is characterized by a dense to sparse cover of annual grasses reaching up to 1 m (3 ft), which may include numerous native wildflowers, particularly in years of high rainfall. These annuals germinate with the onset of the rainy season and set seeds in the late spring or summer. This community is usually found on fine-textured soils that proceed from moist or waterlogged in the winter to very dry during the summer and fall (Holland 1986). Non-native grasslands, in many circumstances, have replaced native grasslands as a result of disturbance (directly manmade [e.g., mechanical disturbance, grazing] or natural [i.e. altered fire cycles]). Dominant plants observed within this vegetation community included Foxtail Chess, Slender Wild Oat, Rip Gut (*Bromus diandrus*), Common Tarweed (*Deinandra fasciculatum*), and Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*). Non-native grasslands primarily occur north of the visitor center and within the southwestern corner of the Preserves.

### Native Grassland (Holland Code 42110)

Within the Preserves native grasslands consist of midheight grasses dominated by perennial tussock forming Purple Needlegrass (*Nassella pulchra*). Characteristic species observed included Common Tarplant, Blue Eyed Grass (*Sisyrinchium bellum*), Wild Celery (*Apiastrum angustifolium*), Blue Dicks (*Dichelostemma capitata*), San Diego Thornmint (*Acanthomintha ilicifolia*), Palmer's Grappling Hook (*Harpagonella palmeri*), and Chocolate Lilies (*Fritillaria biflora* var. *biflora*). On the Preserves this community is strongly associated with heavy clay soils located along the ridge tops within the northern and eastern portions.

### Southern Coast Live Oak Riparian Forest (Holland Code 61310)

Southern coast live oak riparian forest is a dense evergreen sclerophyllous riparian forest dominated by Coast Live Oak (*Quercus agrifolia*). According to Holland (1986), it is richer in herbs and poorer in understory shrubs than other riparian communities. It typically occurs in bottom lands and outer floodplains along larger streams, on fine-grained, rich alluvium. Characteristic species observed within the Preserves include San Diego Sedge (*Carex spissa*), Goldenrod (*Solidago californica*), Mule-fat (*Baccharis salicifolia*), Arroyo Willow (*Salix lasiolepis*), Gooding's Willow (*Salix goodingii*), Red Willow (*Salix laevigata*), Mexican Rush (*Juncus mexicanus*), Mexican Elderberry, Poison Oak, Stinging Nettle (*Urtica urens*), and Wild Rose (*Rosa californica*). Southern coast live oak riparian forest occurs within Sycamore Canyon Creek that drains the Preserves from the northeast to the southwest.

### Coast Live Oak Woodland (Holland Code 71160)

Coast live oak woodland is typically dominated by Coast Live Oak trees that reach 9 to 24 m (30 to 80 ft) in height. The shrub layer within this habitat is usually poorly



developed but may include Toyon, Laurel Sumac or Mexican Elderberry while the herb layer is continuous and typically dominated by non-native grasses. This community typically occurs on north-facing slopes and shaded ravines in southern California (Holland 1986). A small amount of this habitat is found south of the visitor center.

#### Open Coast Live Oak Woodland (Holland Code 71161)

Open coast live oak woodland consists of an open canopy of Coast Live Oak trees that reach 10-25 m (33-82 ft) in height. Other species observed within this community include Rip Gut, Slender Wild Oat and Toyon. Open coast live oak woodland is found in the northeastern most portions of the Preserves just west of State Route 67.

#### Disturbed Freshwater Marsh (Holland Code 52410)

Freshwater marsh communities are found in areas permanently inundated or flooded by fresh water and lacking significant current from water movement. Prolonged saturation in these communities allows for the accumulation of deep, peaty soils. Freshwater marshes are usually located in the coastal valleys near river mouths and around the margins of lakes and springs. Freshwater marsh is dominated by perennial, emergent monocots, typically ranging from 1.2 to 1.5 m (4 to 5 ft) tall. Typically, species of the genera *Typha* (cat-tails) and *Scirpus* (bulrush) dominate this community.

Within the Preserves disturbed freshwater marsh occurs within and adjacent to Sycamore Canyon Creek. A small dam located near the center of the Preserve has historically supported freshwater marsh species but since the Cedar Fire in 2003 the dam has become a sediment trap. The increase in sediment has led to an increase in non-native grasses and overall decrease in the amount of wetland vegetation present. Plants observed within this community include Salt Heliotrope (*Heliotropium curassavicum*), Rip Gut, Foxtail, Amaranthus (*Amaranthus* sp.), and Goosefoot (*Chenopodium* sp.).

#### Developed Land (Holland Code 12000)

Developed land within the Preserves consists of existing roads, buildings, and other infrastructure. Associated with the recreational development and the historical uses within the Preserves is an ornamental Olive Tree grove. The Olive Tree grove is located just north of the visitor center and provides a shaded picnic area for the public.

### Disturbed Habitat (Holland Code 11300)

Disturbed habitat within the Preserves consists primarily of dirt roads and trails. These roads and trails are primarily used for recreational activities including horseback riding, hiking and biking.

## **3.2 Plant Species**

### **3.2.1 Plant Species Present**

Floristic inventories detected 313 plant species at the Preserve. The Baseline Biological Resources Evaluation (Appendix A) includes the complete list of all plant species observed during the surveys.

### **3.2.2 Rare, Threatened, or Endangered Plant Species Present**

The following section discusses special-status plant species observed within the Preserve. A special-status plant species is one listed by federal or state agencies as threatened or endangered; considered to be of special status by one or more special interest groups, such as the California Native Plant Society (e.g., CNPS List 1, 2, 3, and 4 Plant Species); or is included on the County's Sensitive Plant list (Group A, B, C, or D Listed Plants).

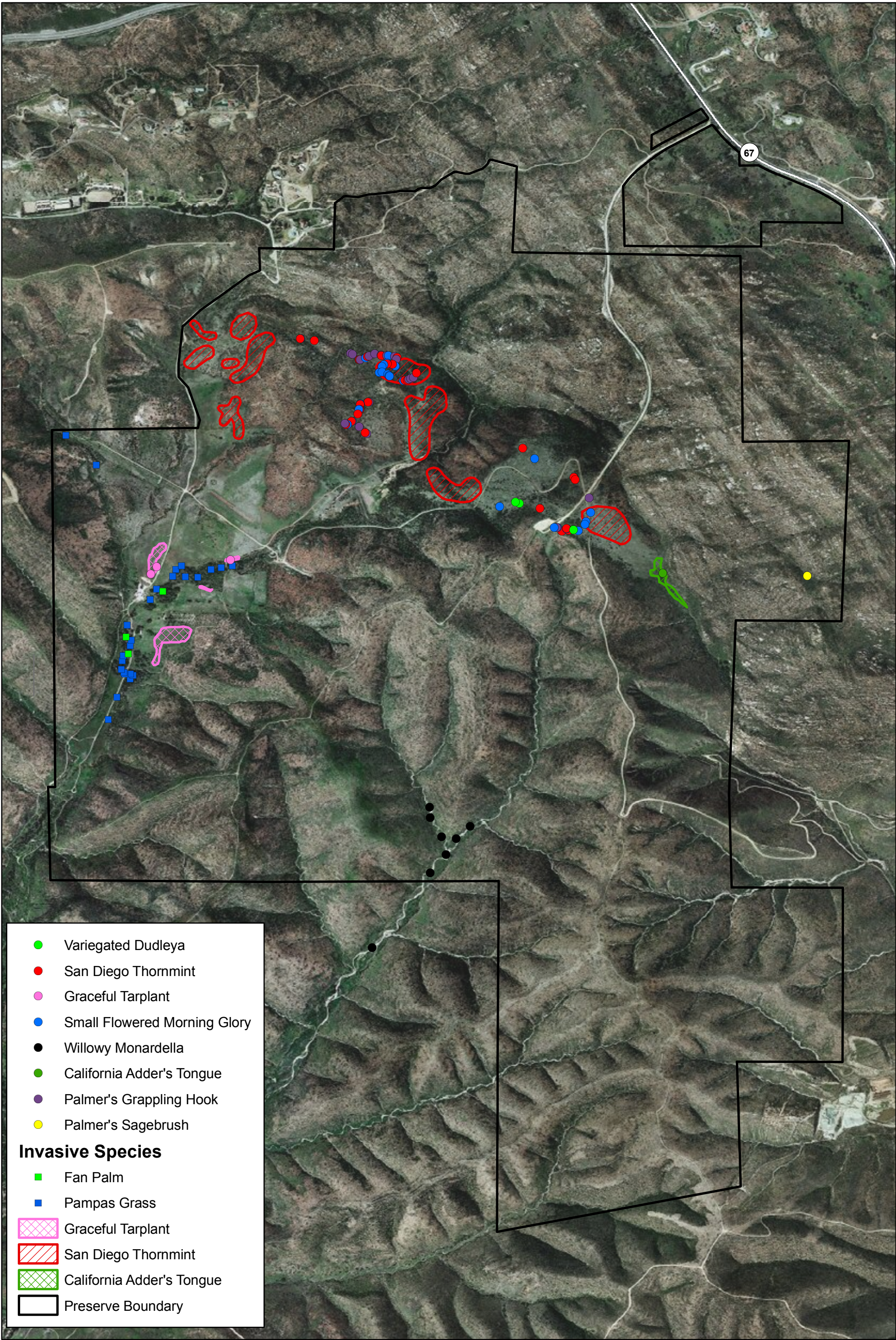
Eight sensitive plant taxa were detected within the Preserve during the 2008 surveys (Figure 8). These include San Diego thornmint, variegated dudleya (*Dudleya variegata*), Palmer's grappling hook, small flowered morning glory (*Convolvulus simulans*), willowy monardella (*Monardella linoides* ssp. *viminea*), graceful tarplant, California adder's tongue (*Ophioglossum californicum*), and Palmer's sagebrush (*Artemisia palmeri*). Each of these species is addressed below in more detail.

#### San Diego Thornmint (*Acanthomintha ilicifolia*)

*Federally Threatened, State Endangered, CNPS List 1B, San Diego County Group A, MSCP Covered Species*

San Diego thornmint is an annual wildflower typically found on friable clay soils in grassy openings within chaparral. This species occurs within the native grasslands found within the northeastern portion of the Preserves. These grasslands support a substantial population of San Diego thornmint. It is estimated that over 10,000 plants occur within the Preserves.







Variegated Dudleya (*Dudleya variegata*)

*CNPS List 1B, San Diego County Group A, MSCP Covered Species*

Variegated dudleya is associated with openings within chaparral and coastal sage scrub. This perennial from corm (or underground plant stem) prefers clay soils and is typically found within close proximity to vernal pools. On site, this species is found within the native grasslands that support friable clay soils and the federally endangered San Diego thornmint.

Palmer's Grappling Hook (*Harpagonella palmeri*)

*CNPS List 4, San Diego County Group D*

Palmer's grappling hook is associated with clay soils within coastal sage scrub habitats. Within the Preserves this species is found within the heavy clay soils that support the San Diego thornmint.

Small Flowered Morning Glory (*Convolvulus simulans*)

*CNPS List 4, San Diego County Group D*

Small flowered morning glory is found on clay soils which are typically devoid of shrubs. Within the Preserves this species is found within the heavy clay soils that also support the federally endangered San Diego thornmint.

Willow Monardella (*Monardella linoides* ssp. *viminea*)

*Federally Endangered, State Endangered, CNPS List 1B, San Diego County Group A, MSCP Covered Species*

Willow monardella, a small subshrub, generally occurs in streams that contain cobbles and have limited cover by large shrubs and trees. Within the Preserves this species occurs in several drainages along the southern portion.

Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*)

*CNPS List 4, San Diego County Group D*

Graceful tarplant is an annual wildflower that is typically found within non-native grasslands. Within the Preserves this species is found in the middle portion adjacent to the southern coast live oak riparian forest.

California Adder's Tongue (*Ophioglossum californicum*)

*CNPS List 4, San Diego County Group D*

California adder's tongue is associated with chaparral, grasslands, and vernal pools at elevations ranging from 60–525 m (18-160 ft). Individuals of California adder's tongue were found within the native grassland located along the easternmost portions of Sycamore Canyon Preserve.

Palmer's Sagebrush (also known as San Diego sagewort) (*Artemisia palmeri*)

*CNPS List 4, San Diego County Group D*

Palmer's sagebrush is typically found along creeks and drainages near the coast and within inland chaparral. Palmer's sagebrush was found within the northeastern portion of Sycamore Canyon Preserve.

**3.2.3 Rare, Threatened, or Endangered Plant Species not Observed but with High Potential to Occur**

Three sensitive species described below have been previously documented or have a high potential to occur within the Preserve. Additional information on the species listed below can be found in the Baseline Biological Resources Evaluation (Appendix A).

Nuttall's Scrub Oak (*Quercus dumosa*)

*CNPS List 1B, San Diego County Group A*

Nuttall's scrub oak has a potential to occur within the chaparral habitat located along the western most portion of the Preserve. This species is known to occur west of the Preserves on MCAS Miramar.

Del Mar Manzanita (*Arctostaphylos glandulosa* ssp. *glandulosa*)

*Federally Endangered, CNPS List 1B, MSCP Covered Species, San Diego County Group A*

Del Mar manzanita has a potential to occur within the chaparral habitat located along the western most portion of the Preserve. This species is known to occur southwest of the Preserves on MCAS Miramar and at Mission Trails Regional Park.

San Diego Goldenstar (*Bloomeria (Muilla) clevelandii*)

*CNPS List 1B, San Diego County Group A, MSCP Covered Species*

San Diego goldenstar was not detected during focused surveys in 2008 but is considered to have a high potential to occur within the native grasslands near the eastern staging area. San Diego goldenstar is also known to occur less than 0.5 mile east of the Preserves.

### **3.2.4 Non-native and/or Invasive Plant Species**

In general the upland areas within the Preserves are dominated primarily by native or naturalized plant species. However, several patches (totaling approximately 14 acres) of pampas grass (*Cortaderia selloana*) and Mexican fan palms (*Washingtonia robusta*) occur within Sycamore Canyon Creek (Figure 8).

Cal-IPC ranks pampas grass as a “high” alert species. This species has severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Cal-IPC ranks Mexican fan palm as a “moderate” alert species. These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

## **3.3 Wildlife Species**

### **3.3.1 Wildlife Species Present**

#### Invertebrates

A complete list of invertebrate species identified on the Preserve below the level of family is included in the faunal list of the Baseline Biological Resources Evaluation (Appendix A). No special-status butterfly species or other invertebrate species were detected during the 2008 surveys and no special-status invertebrate species have high potential to occur at the Preserves.

#### *Butterflies*

Twenty-four butterfly species were observed during the 2008 focused Quino survey and include desert orangetip (*Anthocharis cethura*), Sara’s orangetip (*Anthocaris sara*), Behr’s metalmark (*Apodemia mormo virgulti*), perplexing hairstreak



(*Callophrys affinis perplexa*), brown elfin (*Callophrys augustinus*), Gabb's checkerspot (*Chlosyne gabbii*), orange sulfur (*Colias eurytheme*), funereal duskywing (*Erynnis funeralis*), southern blue (*Glaucopsyche lygdamus australis*), northern white-skipper (*Heliopetes ericetorum*), acmon blue (*Icaricia acmon*), common buckeye (*Junonia coenia*), dainty sulfur (*Nathalis iole*), mourning cloak (*Nymphalis antiopa*), pale swallowtail (*Papilio eurymedon*), western tiger swallowtail (*Papilio rutulus*), Anise swallowtail (*Papilio zelicaon*), cabbage white (*Pieris rapae*), checkered/common white (*Pontia protodice*), spring white (*Pontia sisymbrii*), white checkered skipper (*Pyrgus albescens*), west coast lady (*Vanessa annabella*), red admiral (*Vanessa atalanta*), and painted lady (*Vanessa cardui*).

No Quino checkerspot butterfly was observed on the Preserves. Full details of the Quino survey are provided in the attached Quino Checkerspot Survey Report (Appendix A).

#### *Other Invertebrates*

Twenty-two other invertebrate species were detected during the herpetological array sampling and/or observed during other fieldwork (Appendix A). These species were identified in the field, or photographed and provided to a local entomologist to identify. No invertebrate species were collected.

#### Amphibians

Two amphibian species were detected during the 2008 surveys including western spadefoot (*Spea hammondi*) and Pacific chorus frog (*Pseudacris regilla*). Western spadefoot was captured in three of the pitfall arrays and was captured during every month of sampling except July. The majority of the captures occurred in a sandy dry wash, and a pitfall array situated in coastal sage-chaparral scrub approximately 500 feet west of the same sandy wash. Tadpoles of this species were identified during dip netting of a small creek. This species is presumed to breed in areas that pool within the Preserve. Pacific chorus frog was detected during active searches. It is presumed to be breeding in small pools along Sycamore Canyon Creek.

#### Reptiles

During the 2008 sampling at the Preserves, 16 reptile species were detected. Eleven reptile species were captured by arrays during the 2008 sampling periods at the Preserves: southern alligator lizard (*Elgaria multicarinata*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), western fence lizard (*Sceloporus occidentalis*), granite spiny lizard (*Sceloporus orcutti*), side-blotched lizard (*Uta stansburiana*), Gilbert's skink (*Eumeces gilberti*), Coronado skink (*Eumeces skiltonianus interparietalis*), orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*), coastal western whiptail (*Cnemidophorus tigris stejnegeri*), western rattlesnake (*Crotalus oregonus*), and night snake (*Hypsiglena torquata*). Five additional reptile species observed or detected but not captured in the arrays include

granite night lizard (*Xantusia henshawi*), common kingsnake (*Lampropeltis getula*), gopher snake (*Pituophis catenifer*), coastal patch-nosed snake (*Salvadora hexalepis virgulata*), and red diamond rattlesnake (*Crotalus ruber*).

Three additional species were observed by park staff. A coastal rosy boa (*Lichanura trivirgata roseofusca*) and a speckled rattlesnake (*Crotalus mitchellii*) were captured by park rangers and kept in captivity at the Ranger Station on the Goodan Ranch Preserve. A two-striped garter snake (*Thamnophis hammondi*) was observed by park staff within Sycamore Canyon Creek (Pers. Com B. Bogglen March 25, 2008).

## Birds

Avian species richness (total species detected) was found to be high at the Preserves. In total, 73 bird species were detected with 65 bird species during the point counts and eight during other fieldwork. These included year-round residents, winter-only species, breeding species that migrate to the Neotropics, and species that are strictly migratory through the Preserves, neither breeding nor wintering there.

The Preserves avifauna is a mixture of species that are associated with the diverse habitat types found on site. These species include red-tailed Hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), Costa's hummingbird (*Calypte costae*), Nuttall's woodpecker (*Picoides nuttallii*), Pacific-slope flycatcher (*Empidonax difficilis*), ash-throated flycatcher (*Myiarchus cinerascens*), California horned lark (*Eremophila alpestris actia*), bushtit (*Psaltiriparus minimus*), white-breasted nuthatch (*Sitta carolinensis*), rock wren (*Salpinctes obsoletus*), Bewick's wren (*Thryomanes bewickii*), house wren (*Troglodytes aedon*), blue-gray gnatcatcher (*Polioptila caerulea*), western bluebird (*Sialia mexicana*), common yellowthroat (*Geothlypis trichas*), yellow-breasted chat (*Icteria virens*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), lark sparrow (*Chondestes grammacus*), Bell's sage sparrow (*Amphispiza belli belli*), song sparrow (*Melospiza melodia*), black-headed grosbeak (*Pheucticus melanocephalus*), blue grosbeak (*Passerina caerulea*), Lazuli bunting (*Passerina amoena*), house finch (*Carpodacus mexicanus*), and lesser goldfinch (*Carduelis psaltria*).

The Preserves have a very good diversity of raptors (birds of prey), including twelve observed raptor species: turkey vulture (*Cathartes aura*), osprey (*Pandion haliaetus*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk, golden eagle (*Aquila chrysaetos*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), western screech-owl (*Megascops kennicottii*), great horned owl (*Bubo virginianus*), and burrowing owl (*Athene cunicularia*). These birds are using the Preserves for foraging and some species have potential to breed on site. One raptor nest was detected during the surveys; a red-shouldered hawk nest was detected near the Ranger Station.



## Mammals

A complete list of mammal species observed within the Preserves during the 2008 surveys is included in the faunal list of the Baseline Biological Resources Evaluation (Appendix A).

### *Small Mammals*

In total, ten small mammal species were recorded at the Preserves during small mammal trapping and other surveys. These species included: Dulzura Pocket Mouse (*Chaetodipus californicus femoralis*); Dulzura Kangaroo Rat (*Dipodomys simulans* [= *Dipodomys agilis simulans*]); California Mouse (*Peromyscus californicus insignis*); Northern Baja Mouse (*Peromyscus fraterculus* [= *Peromyscus eremicus fraterculus*]); American Deer Mouse (*Peromyscus maniculatus gambelii*); Dusky-footed Woodrat (*Neotoma fuscipe macrotis*); San Diego Desert Woodrat (*Neotoma lepida intermedia*); Desert Shrew (*Notiosorex crawfordi*); California Ground Squirrel (*Spermophilus beecheyi nudipes*), and; California Vole (*Microtus californicus*). These species were detected through capture, direct observation or sign. The trapping results indicate that the Preserve has good abundance and species diversity of small mammals with 230 captures and ten species. The species detected are commonly found in the habitats found on the Preserve.

### *Medium and Large Mammals*

A total of five medium and large mammals were detected in the Preserves during the 2008 surveys including: desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), common raccoon (*Procyon lotor*), coyote (*Canis latrans*), bobcat (*Felis rufus*), common gray fox (*Urocyon cinereoargenteus*), southern mule deer (*Odocoileus hemionus fuliginata*), domestic dog (*Canis familiaris*), and domestic horse (*Equus caballus*). One additional species, mountain lion (*Puma concolor*) was detected by park staff in 2008.

### *Bats*

A total of 11 bat species were detected during the three seasons of bat monitoring (spring, summer, and fall of 2008). Ten species were detected using passive Anabats and one additional species was detected during an active survey. The most active bat species detected were the Yuma myotis (*Myotis yumanensis*), Mexican free-tailed bat (*Tadarida brasiliensis*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*). Species detected infrequently consisted of small-footed myotis (*Myotis ciliolabrum*), Hoary bat (*Lasiurus cinereus*), and big free-tailed bat (*Nyctinomops macrotis*). One additional bat species, California myotis (*Myotis californicus*), was detected with an Anabat during the single active foraging bat survey conducted on August 20, 2008.

Three species were detected during all three seasons of monitoring: Yuma myotis, pocketed free-tailed bat, and Mexican free-tailed bat. Two species were detected only during the spring, Hoary bat and big free-tailed bat, suggesting they may be spring migrants to the area. Three species were detected only during the summer: small-footed myotis (*Myotis ciliolabrum*), big brown bat (*Eptesicus fuscus*), and western mastiff bat (*Eumops perotis*). Lastly, one species, the western red bat (*Lasiurus blossevillei*), was detected only during the fall.

A moderate number of bat species appear to be supported by the Sycamore Canyon and Goodan Ranch Preserve. The Preserves are fairly diverse and contain habitat features important to bats in the southern California landscape such as riparian vegetation, oak woodland, and scrub vegetation (Krutzsch 1948, Stokes et al 2005).

### **3.3.2 Rare, Threatened, or Endangered Wildlife Species Present**

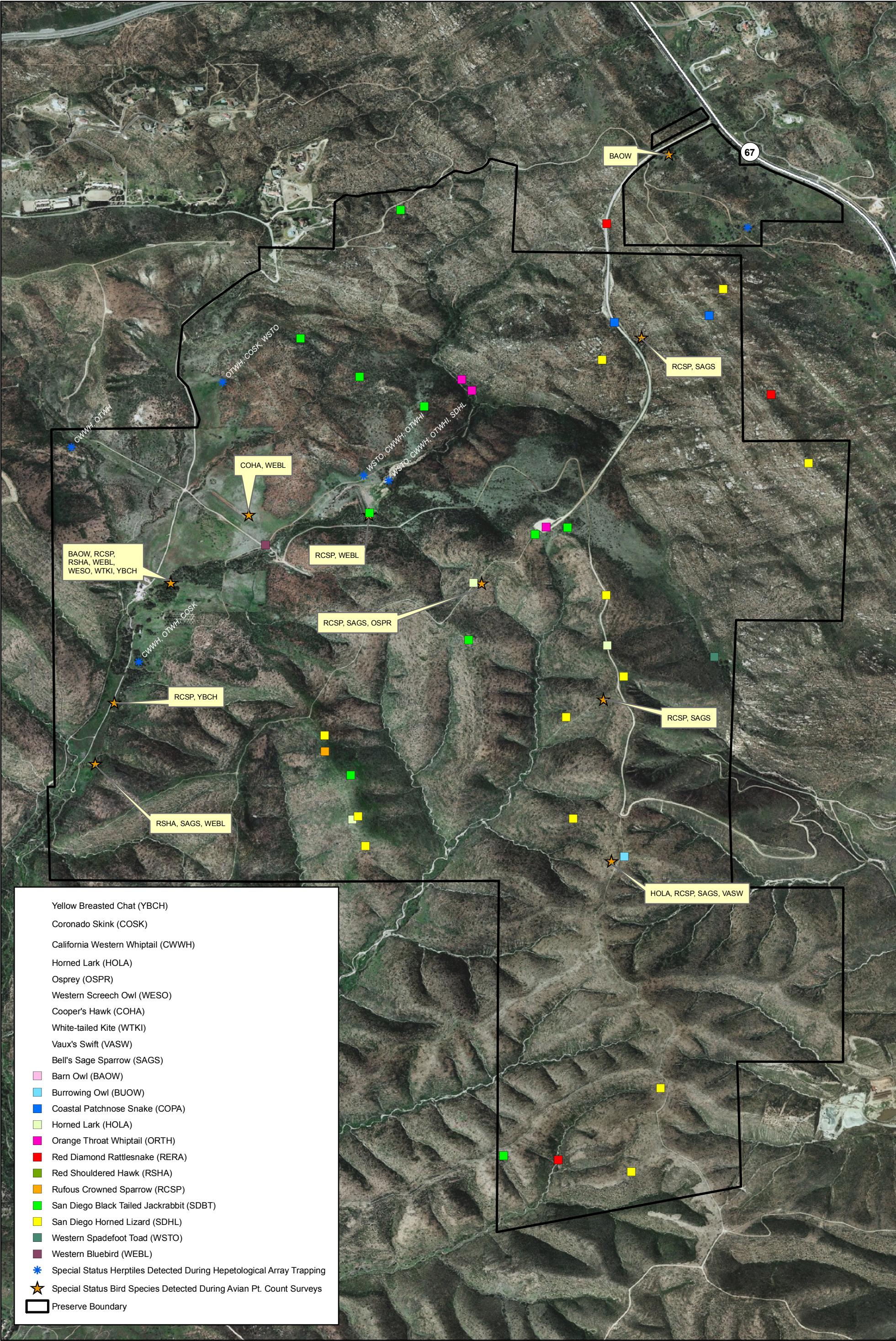
This section discusses special-status wildlife species observed at the Preserves (Figure 9). A special-status wildlife species is one listed by federal or state agencies as threatened or endangered; is included on the County's Sensitive Animal List (Group 1 or 2 Species); or is covered under the MSCP. Thirty-two special-status wildlife species were detected at the Preserve. Each of these 32 species is addressed below in more detail.

#### Western Spadefoot (*Scaphiopus [=Spea] hammondi*)

##### *State Species of Special Concern, San Diego County Group 2*

The western spadefoot range covers the central portion of northern California, the Great Valley, and Coast Ranges from San Francisco to Baja California (Lemm 2006). Although they spend the majority of their life outside water, they require temporary rain pools with water temperatures between 48° and 86°F (9° and 30° C) lasting upwards of three weeks. These pools must also lack predators of eggs and tadpoles such as introduced fishes, bullfrogs, and crayfishes (Jennings and Hayes 1994). Vernal pools are sometime occupied, but in all cases the species must have access to soils suitable for digging to allow estivation during the dry season. Tolerance of disturbance is high where conditions are otherwise suitable, and the species is sometimes found in pools resulting from landscape modification by man, even adjacent to roads. Based on the number of pitfall captures in both the sandy wash and surrounding upland habitat this species appears to be abundant within the Preserves.







San Diego Horned Lizard (*Phrynosoma coronatum blainvillii*)

*State Species of Special Concern, San Diego County Group 2, MSCP Covered Species*

The San Diego horned lizard is a large lizard that historically was found in Kern, Los Angeles, Santa Barbara, and Ventura counties southward to Baja California, Mexico. Horned lizards inhabit a variety of vegetation communities including coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Stebbins 2003). Loose, fine soils with a high sand content, an abundance of prey and open areas with limited overstory typify suitable habitat for this species (Jennings and Hayes 1994).

The San Diego horned lizard's insectivorous diet consists mostly of native Harvester Ants (*Pogonomyrmex* sp.) which make up over 90% of their prey items, but it is an opportunistic feeder that will take other insects including termites, beetles, flies, wasps, and grasshoppers (Stebbins 2003, Jennings and Hayes 1994). The San Diego horned lizard was observed on numerous occasions in the more open scrub habitats within the Preserves. The majority of the Preserves supports appropriate habitat for this species.

Coronado Skink (*Eumeces skiltonianus interparietalis*)

*State Species of Special Concern, San Diego County Group 2*

The Coronado skink is a medium-sized secretive lizard that is typically found in the moister areas of coastal sage, chaparral, oak woodlands, pinon-juniper, riparian woodlands and pine forests (Jennings and Hayes 1994). Their prey includes small invertebrates found in leaf litter or dense vegetation at the edges of rocks and logs. The Coronado skink is found along the coastal plain and Peninsular Ranges west of the deserts from approximately San Geronimo Pass in Riverside County south to San Quentin, Mexico (Jennings and Hayes 1994). This species was captured in a pitfall array placed under the oak woodland near Sycamore Canyon Creek. This species is presumed to inhabit the valleys that support oaks within the Preserves.

Orange-throated Whiptail (*Cnemidophorus hyperythrus beldingi*)

*State Species of Special Concern, San Diego County Group 2, MSCP Covered Species*

The orange-throated whiptail is a medium-sized lizard that ranges from Southern California (specifically Corona del Mar in Orange County and Colton in San Bernardino County) southward to the tip of Baja California, Mexico. Historically, most populations of the orange-throated whiptail were found on floodplains or terraces along streams in brushy areas with loose soil and rocks (McGurty 1980). Habitat types they are known to use include chaparral, non-native grassland, coastal



sage scrub, juniper woodland, and oak woodland. California Buckwheat is an important indicator of appropriate habitat for orange-throated whiptails (Dudek 2000). This plant species is a colonizer of disturbed, sandy soils and usually indicates open shrub spacing that is required for foraging and thermoregulatory behavior. Orange-throated whiptails appear to be dietary specialists with most (> 85%) of its prey being comprised of termites (Dudek 2000). This species is presumed to be abundant within the Preserves due to captures at the majority of the pitfall arrays.

Coastal Western Whiptail (*Cnemidophorus tigris multiscutatus*)

*San Diego County Group 2*

Coastal western whiptail is a medium-sized slender lizard that is found in arid and semiarid desert to open woodlands where the vegetation is sparse so running is easy (Stebbins 2003). Its range includes coastal Southern California and western Baja California. The decline of coastal western whiptails is likely due to loss of habitat to agriculture and urban development. This species is presumed to be abundant within the Preserves due to captures at the majority of the pitfall arrays.

Coast Patch-nosed Snake (*Salvadora hexalepis virgutea*)

*State Species of Special Concern, San Diego County Group 2*

The coast patch-nosed snake is a medium-sized, slender snake that is a habitat generalist that makes use of whatever vegetative cover is available and thrives in most environments. It is also a generalist in its diet, opportunistically feeding on anything it can overpower including small mammals, lizards, and the eggs of lizards and snakes. The species ranges from Creston in San Luis Obispo County southward into Baja California (Stebbins 2003). This species' decline is likely due to conversion of habitat to development, agriculture or non-native plant species.

This species was observed on two occasions in the Preserves' dominant vegetation community, southern mixed chaparral. The Preserves support a large amount of appropriate habitat for this species.

Red Diamond Rattlesnake (*Crotalus ruber ruber*)

*State Species of Special Concern, San Diego County Group 2*

The red diamond rattlesnake is a large, heavy-bodied rattlesnake that has a wide tolerance for varying environments and can be found in a variety of vegetation types, but it is most commonly seen in areas with heavy brush and cactus, rocks or boulders (Stebbins 2003). The known range extends from San Bernardino County along the coastal and desert slopes southward to Baja California. Adult red diamond rattlesnakes eat mostly squirrels and rabbits but lizards, specifically the Western

Whiptail, are a significant food source for juveniles (Jennings and Hayes 1994). Urban development and the trend towards planting orchards on the steeper rocky hillsides have significantly decreased the amount of appropriate habitat for this species (Jennings and Hayes 1994).

This species was observed on the road in Goodan Ranch Preserve and in the steep rocky canyon on the southern edge of the Preserve. The majority of the Preserve supports appropriate habitat for this species.

#### Turkey Vulture (*Cathartes aura*)

##### *San Diego County Group 1*

Turkey vultures are often seen foraging over woodlands and nearby open country (Unitt 2004). They prefer dry, open country and ranch lands and often occur along roadsides where carrion is common. They nest in crevices among granite boulders (Unitt 2004). The turkey vulture's range has been retracting from the coast due to human disturbance, loss of foraging habitat and pesticide contamination (Unitt 2004). Turkey vultures were observed foraging over the Preserves. There is minimal suitable breeding habitat for this species.

#### Osprey (*Pandion haliaetus*)

##### *San Diego County Group 1*

Ospreys usually breed close to water sources such as lakes, rivers, estuaries and the coast. The nest site in a natural setting is typically on a tree-top or rocky outcrop overlooking the water. This species has adapted to the urban environment to some extent in that they will build nests on man-made structures such as floodlights for sports fields, cell phone towers, and tall cranes. Distance from a water source to a nest site has been recorded as far as 10 miles (Unitt 2004). One osprey was observed in the Preserve during April 2008 riding a thermal. This species is often seen foraging at San Vicente Reservoir, which is southeast of the Preserves (K. Fischer personal observation); however, breeding has not been documented in the vicinity of the reservoir or the Preserves (Unitt 2004).

#### White-Tailed Kite (*Elanus caeruleus*)

##### *State Fully Protected Species (nesting), San Diego County Group 1*

The white-tailed kite is found in lower elevations in open grasslands, agricultural areas, wetlands, and oak woodlands. Their primary source of food is the California Vole (*Microtus californicus sanctidiegi*) (Unitt 2004). It typically forages in open undisturbed habitats and nests in the top of a dense oak, willow or other large tree (Unitt 2004). The white-tailed kite population is on the decline mostly due to urban sprawl; however, this species is still considered fairly widespread throughout the



foothills of San Diego County (Unitt 2004). One white-tailed kite was seen perched and foraging near Sycamore Canyon Creek. This species could breed in the riparian habitat within the Preserves but no nests were observed during 2008.

Northern Harrier (*Circus cyaneus*)

*State Species of Special Concern, San Diego County Group 1, MSCP Covered Species*

The northern harrier is associated with open grassland and marshes. This species typically forages in open, undisturbed habitat and nests on the ground in areas of dense low-growing vegetation to help conceal the nest. Nesting harriers are now considered rare and the known breeding population in San Diego County is estimated at 25 to 75 pairs (Unitt 2004). As with other ground nesting grassland birds, the northern harrier population is on the decline due to urban sprawl (Unitt 2004). A northern harrier was observed foraging over the Preserve. There is minimal suitable breeding habitat within the boundary of the Preserve and if this species was nesting on the Preserves, the location would have been identified during the surveys.

Cooper's Hawk (*Accipiter cooperii*)

*San Diego County Group 1, MSCP Covered Species*

The Cooper's hawk is a resident of riparian deciduous habitats and oak woodlands but in recent times has become adapted to urban park environments (Unitt 2004). They hunt their primary source of food, passerines, in broken woodlands and forest margins and they are also known to take fish and mammals. The Cooper's hawk population declined due to hunting and loss of habitat; however, this species is making a comeback through its adaptation to the urban environment (Unitt 2004).

One Cooper's hawk was observed in August and one in September. This species may nest within the Preserves but there were no observations of this species during peak raptor nesting periods.

Red-shouldered Hawk (*Buteo lineatus*)

*San Diego County Group 1*

The red-shouldered hawk was once an uncommon breeder of lowland riparian woodlands but has been thriving in urban environments with large trees such as gum (*Eucalyptus* sp.). On the west coast, this species is found in California and northern Baja California and is common throughout San Diego County. A red-shouldered hawk was detected building a nest near the Ranger Station; but the success of this nest was not determined during the surveys. This species was observed in April, July and August.

Golden Eagle (*Aquila chrysaetos*)

*State Fully Protected Species, San Diego County Group 1, MSCP Covered Species*

Golden eagles nest on cliff ledges or trees on steep slopes and forage in grasslands, sage scrub, or broken chaparral (Unitt 2004). Development of the grasslands they forage over has taken a toll on the numbers of this species present in San Diego County. A territory averages 36 square miles so removal of foraging habitat will have significant impacts on this species (Unitt 2004). A first year golden eagle was seen flying overhead and this species has historically been detected foraging at the Preserves. The Preserves do not provide nesting habitat for this species but foraging habitat is present.

Barn Owl (*Tyto alba*)

*San Diego County Group 2*

The barn owl is the owl species that is most tolerant to urban development. It will nest in buildings, nest boxes, at the base of the leaves in palm trees, and in cavities in native trees. Even though this species is tolerant of human development, dense housing communities do not provide suitable nesting habitat and increased traffic has had a negative effect on the species. Several barn owls were detected on the Preserve. The first use area is within Sycamore Canyon Creek. Barn owls were detected in the riparian habitat and in the surrounding area, perched on powerlines. The second use area is near the eastern boundary of Sycamore Canyon Preserve.

Burrowing Owl (*Athene cunicularia*)

*State Species of Special Concern, San Diego County Group 1, MSCP Covered Species*

Burrowing owls are found in prairies, grasslands, lowland scrub, agricultural lands, coastal dunes, desert floors, and some artificial open areas (Unitt 2004). This species requires large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. They use rodent or other burrows for roosting and nesting cover and also are known to use pipes, culverts, and nest boxes where burrows are scarce. As with other grassland species, the burrowing owl population in San Diego County is on the decline due to loss of habitat to development and habitat fragmentation (Unitt 2004). One burrowing owl was observed along a ridgetop road in Sycamore Canyon Preserve. The bird was flushed from the road and flew away. The species was not detected in the area again.



Vaux's Swift (*Chaetura vauxi*)

*State Species of Special Concern*

Vaux's swift is a migrant and winter visitor to San Diego County (Unitt 2004). This species can be seen in low numbers flying across any habitat type in the County. Spring migration is typically between April and May and fall migration is typically September and October. This species breeds in old growth forests and changes in forest structure and fragmentation in its nesting range have led to the species decline (Dudek 2000). One Vaux's swift was seen at the southern most point count station during the September sampling periods. The bird flew overhead and did not stop to forage.

California Horned Lark (*Eremophila alpestris actia*)

*San Diego County Group 2*

The California horned lark is a resident of a variety of open habitats, usually where trees and large shrubs are absent (Zeiner et al. 1990). This species primarily breeds in open fields and grasslands and is found along the coastal slope of San Diego County east to Jacumba (Unitt 2004). Continuing threats to this species include habitat destruction and fragmentation. California horned larks were observed at the southern most point count station where an adult was observed with food for chicks.

Western Bluebird (*Sialia mexicana*)

*San Diego County Group 2, MSCP Covered Species*

The western bluebird is a stocky blue bird with a chestnut chest and is considered common in the foothills and mountains of San Diego County. This species can usually be found in montane coniferous and oak woodlands (Unitt 2004). It can also occur in areas with scattered trees, open forests, scrubs and during the winter in the desert. A western bluebird pair was observed nesting in Sycamore Canyon Creek.

Yellow-breasted Chat (*Icteria virens*)

*State Species of Special Concern, San Diego County Group 1*

The yellow-breasted chat is a common summer breeding visitor that prefers to nest in extensive dense thickets of riparian habitat (Unitt 2004). This species is very secretive so finding their nests is a challenge. The decline of this species is due to the loss of riparian woodlands in the coastal lowland as a result of development, agriculture, and channeling rivers (Dudek 2000). At least one yellow-breasted chat was heard signing often in the early morning and prior to sunrise in April, May and June. The breeding status of this bird was unknown.

Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)

*San Diego County Group 1, MSCP Covered Species*

The southern California rufous-crowned sparrow is a resident species that is closely associated with coastal sage scrub, steep rocky hillsides, burned chaparral, and openings in mature chaparral (Unitt 2004). Preferring open habitat with approximately 50 percent shrub cover, this species seeks cover in shrubs, rocks, grass, and forb patches (Dudek 2000, Unitt 2004). The southern California subspecies is restricted to semiarid coastal sage scrub and sparse chaparral from Santa Barbara south to the northwestern corner of Baja California (Dudek 2000). Southern California rufous-crowned sparrows are declining due to loss of appropriate habitat and are sensitive to habitat fragmentation (Unitt 2004). Southern California rufous-crowned sparrows were detected throughout the Preserves.

Bell's Sage Sparrow (*Amphispiza belli belli*)

*San Diego County Group 1*

The Bell's sage sparrow is a resident species that is usually found in chaparral and coastal sage scrub in southern California and Baja California. This mostly ground-dwelling species prefers open chaparral and sage scrub and is one of the first species to inhabit recently burned habitat (Unitt 2004). The subspecies Bell's sage sparrow, *A. b. belli*, occurs along the coastal lowlands, inland valleys, and in the lower foothills of the local mountains in southern California and south into Baja California (Dudek 2000). The decline of this species can be attributed to fire suppression, invasion by exotic plant species, loss of habitat to agriculture and urban development and population isolation due to habitat fragmentation (Unitt 2004, Dudek 2000). Successful breeding was observed near the central point count station.

Dulzura Pocket Mouse (*Chaetodipus californicus femoralis*)

*State Species of Special Concern, San Diego County Group 2*

Dulzura pocket mouse is mainly active on the ground, but also climbs shrubs and small trees when feeding (CDFG 2005). This species can become torpid by day at any time of the year, and is inactive in cold wet weather. It breeds in spring to early summer and occurs from sea level to approximately 2,408 m (7,900 ft) AMSL (CDFG 2005). This species prefers dense chaparral and is less common in dry grassland and desert scrub. During the 2008 trapping program on the Preserves, 36 of the 230 animals captured were Dulzura pocket mouse.



San Diego Desert Woodrat (*Neotoma lepida intermedia*)

*State Species of Special Concern, San Diego County Group 2*

San Diego desert woodrat requires large amounts of water, which it obtains from fleshy plants such as Yucca species and Prickly Pear Cactus (*Opuntia* sp.). It usually makes a stick house under one of these food plants, or may den among rocks (CDFG 2005). House materials include cacti, sticks, bones and a variety of debris. Houses provide insulation against excessive heat as well as protection from predators. This species breeds in late winter or spring, occurs from sea level to approximately 2,591 m (8,500 ft) AMSL in deserts and coastal sage scrub, and prefers areas with rocky outcrops and plentiful succulents (CDFG 2005). During the 2008 trapping program on the Preserves, 12 of the 230 animals captured were San Diego desert woodrat.

San Diego Black-tailed Jackrabbit (*Lepus californicus*)

*State Species of Special Concern, San Diego County Group 1*

The San Diego black-tailed jackrabbit is a large, long legged hare, with distinctive long ears and a blackish tail (Whitaker 1996). The black-tailed jackrabbit inhabits a wide range of habitats, including deserts, irrigated croplands, high mountains to 2,500 m (8,200 ft), and is commonly found in the western U.S. to Mexico and Baja California. The San Diego County population is found mostly on the coastal side of the local mountains in open habitats, usually avoiding dense stands of chaparral or woodlands (Stephenson and Calcarone 1999).

This species has been declining due to urban development, habitat loss, and fragmentation leading to population isolation (Dudek 2000). The Preserve supports a healthy population of San Diego black-tailed jackrabbits. During the 2008 surveys this species was documented throughout the Preserves.

Southern Mule Deer (*Odocoileus hemionus fuliginata*)

*San Diego County Group 2, MSCP Covered Species*

Southern mule deer are common across the western U.S. in a variety of habitats from forest edges to mountains and foothills (Whitaker 1996). Southern mule deer prefer edge habitats, rarely travel or forage far from water and are most active around dawn and dusk. Southern mule deer were documented throughout the Preserves and are known to use the wildlife corridors along State Route 67 to the east and beneath Scripps Poway Parkway to the north.

### Mountain Lion (*Puma concolor*)

#### *San Diego County Group 2, MSCP Covered Species*

Mountain lions prefer rocky areas, cliffs, and ledges that provide cover within open woodlands and chaparral (Dudek 2000). Riparian areas also provide protective habitat connections for movement between fragmented habitats. This species is widespread in North and South America and occupies a broad variety of habitats from the northern limit of the Canadian forests to Patagonia in South America. Populations of this species require large areas (at least 850 square miles) to sustain themselves (Dudek 2000).

Habitat fragmentation, loss of large areas of undeveloped land, road kills, indiscriminate shootings, animal control measures, and loss of natural prey base have led to the decline of this species. Mountain lion was not detected during the baseline surveys performed by ICF Jones & Stokes during the 2008 survey season; however, this species was detected on two separate occasions by park rangers in 2008. The Preserves are part of a large contiguous tract of undeveloped land that provides suitable conditions for this wide-ranging species.

### Small-footed Myotis (*Myotis ciliolabrum*)

#### *San Diego County Group 2*

The small-footed myotis is found throughout most of western North America, from southwestern Canada south into Mexico (BCI 2008). There is not much information on the habitat requirements of this species, but it has been documented under rock slabs and in crevices, mine tunnels, under loose tree bark, and in buildings (BCI 2008). This species hibernates in caves, typically in small groups. Reasons for decline are poorly understood as there has been little research conducted on this species. Both suitable roosting and foraging habitat for the small-footed myotis occur in the Preserves.

### Yuma Myotis (*Myotis yumanensis*)

#### *San Diego County Group 2*

The Yuma myotis is found throughout much of the western U.S. and up into Canada (BCI 2008). The species is always found near lakes, creeks or ponds where the species forages over the water. Typically, individuals skim low over the water and snatch up flying insects but they can forage in other mesic areas. The species roosts by day usually in buildings or bridges but has also been documented using mines or caves (BCI 2008). Yuma myotis are threatened by loss of riparian habitat and the decline in permanent water sources in the southwest. The Yuma myotis is likely not roosting on the Preserve. The individuals detected are using the Preserves as a place to forage.



Western Red Bat (*Lasiurus blossevillii*)

*State Species of Special Concern, San Diego County Group 2*

Western red bats are found from southern Canada, throughout the U.S., all the way down to South America (BCI 2008). Several species in the genus *Lasiurus* are commonly referred to as "tree bats" because they roost only in tree foliage. The western red bat is a typical tree bat, with a close association with cottonwoods (*Populus* sp.) and riparian areas (BCI 2008). Like all tree bats, this species is solitary, coming together only to mate and to migrate. Western red bats typically forage along forest edges, in small clearings, or around street-lights where they prefer moths (BCI 2008). Although largely undocumented, this species' decline appears to be in part due to the loss of lowland riparian forests in the Southwest. Both suitable roosting and foraging habitat for the western red bat occur in the Preserves.

Pocketed Free-tailed Bat (*Nyctinomops femorosaccus*)

*State Species of Special Concern, San Diego County Group 2*

Pocketed free-tailed bats are rarely found in southwestern California. These bats live in arid desert areas and roost in crevices high on cliff faces in rugged canyons (BCI 2008). Nursery colonies are relatively small and usually include fewer than 100 individuals. This species primarily forages on large moths, especially over water. The regional status and species trends are unclear, but it is likely vulnerable to disturbance, especially at roosts, and perhaps also to threats to food supply from man-made toxins. The pocketed free-tailed bat is likely not roosting on the Preserve as there are no cliffs. The individuals detected are using the Preserves for foraging.

Big Free-tailed Bat (*Nyctinomops macrotis*)

*San Diego County Group 2*

Big free-tailed bats are typically found in desert and arid grasslands with rocky outcrops, canyons, or cliffs (BCI 2008). This species roosts on cliffs and occasionally in buildings. Isolated populations can be found throughout the southwestern U.S. into Mexico. The regional status and species trends are unclear, but it is likely vulnerable to disturbance, especially at roosts, and perhaps also to threats to food supply from man-made toxins. The big free-tailed bat is likely not roosting on the Preserve as there are no cliffs. The individuals detected are using the Preserves to forage.

Western Mastiff Bat (*Eumops perotis*)

*State Species of Special Concern, San Diego County Group 2*

Western mastiff bats are the largest native bats in the U.S. This subspecies occurs from the western foothills of the Sierra Nevada and the coastal ranges (south of San Francisco Bay) southward into Mexico (BCI 2008). In southern California, they are found throughout the coastal lowlands up to drier mid-elevation mountains, but avoid the Mohave and Colorado deserts (Zeiner et al. 1990). Habitats include dry woodlands, shrublands, grasslands, and occasionally even developed areas. This bat forages in flight and most prey species are relatively small, low to the ground, and weak-flying.

For roosting, western mastiff bats appear to favor rocky, rugged areas in lowlands where abundant suitable crevices are available for day roosts (BCI 2008). Roost sites may be in natural rock or in tall buildings, large trees or elsewhere. The reasons for this species' decline are poorly understood but probably are related to disturbance, habitat loss, and perhaps widespread use of pesticides. The western mastiff bat is likely not roosting on the Preserve as there are no cliffs. The individuals detected are using the Preserves for foraging.

**3.3.3 Rare, Threatened or Endangered Wildlife with High Potential to Occur**

Additional information on the species listed below can be found in the Baseline Biological Resources Evaluation Report (Appendix A).

Coastal Rosy Boa (*Charina trivirgata roseofusca*)

*San Diego County Group 2*

Although this species was not observed by ICF Jones & Stokes biologists during the 2008 sampling it was observed by park rangers. This species has the potential to occur in any of the habitats found on the Preserves.

Two-striped Garter Snake (*Thamnophis hammondi hammondi*)

*State Species of Special Concern, San Diego County Group 1*

Although this species was not observed by ICF Jones & Stokes biologists during the 2008 sampling it was observed by park rangers. This species is usually associated with a permanent or relatively permanent water source and would only likely be present in and near Sycamore Canyon Creek.

San Diego Ringneck Snake (*Diadophis punctatus similis*)

*San Diego County Group 2*

This species has high potential to occur throughout the Preserves.

Merlin (*Falco columbarius*)

*San Diego County Group 2*

This species has high potential to occur as a migrant within the Preserves as it was detected at the Preserves in 2007 (K. Fischer, personal observation).

Long-eared Owl (*Asio otus*)

*State Species of Special Concern, San Diego County Group 1*

Long-eared owls have historically been detected in Sycamore Canyon (Unitt 2004) but this was prior to the 2003 Cedar Fire. The status of the species in Sycamore Canyon since the fire is unknown. None were detected during the 2008 nocturnal surveys; however, given the previous sightings and the presence of suitable habitat, their potential for occurrence is high.

Loggerhead Shrike (*Lanius ludovicianus*)

*State Species of Special Concern, San Diego County Group 1*

Loggerhead shrikes have been documented in the general vicinity (Unitt 2004) and have high potential to forage and nest at the Preserves.

Least Bell's Vireo (*Vireo belli pusillus*)

*Federally Endangered, State Endangered, San Diego County Group 1, MSCP Covered Species*

Least Bell's vireo has high potential to occur in the patch of southern willow scrub along Sycamore Canyon Creek. This species has been documented in Sycamore Canyon, south of the Preserve near Santee Lakes. There is high potential for this species to use the riparian habitat at the Preserves as the population's numbers increase.



Coastal California Gnatcatcher (*Polioptila californica californica*)

*Federally Threatened, State Species of Special Concern, San Diego County Group 1, MSCP Covered Species*

Coastal California gnatcatchers have historically been detected at the Preserve. Currently, most of the coastal sage scrub is not appropriate for this species and if it is appropriate it is isolated from other patches. This species has high potential to occur as it previously inhabited the area but current conditions do not support high potential for the species to occur. As the coastal sage scrub recovers and California gnatcatchers inhabit the nearby coastal sage scrub, this species will have high potential to occur at the Preserves.

Grasshopper Sparrow (*Ammodramus savannarum*)

*State Species of Concern, San Diego County Group 1, MSCP Covered Species*

Within Sycamore Canyon Preserve this species has a high potential to occur in areas with native grasses.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)

*State Species of Special Concern, San Diego County Group 2*

This species has potential to occur in sage scrub and chaparral habitats within the Preserves.

Pallid Bat (*Antrozous pallidus*)

*State Species of Special Concern, San Diego County Group 2*

Both suitable roosting and foraging habitat for the pallid bat occurs in the Preserves.

### **3.3.4 Non-native and/or Invasive Wildlife Species**

Two non-native or invasive species were detected during the surveys: European starling (*Sturnus vulgaris*) and brown-headed cowbird (*Molothrus ater*). There were 16 sightings of European starling and these birds were at an avian point count station near the Ranger Station. This species does not currently pose a significant threat to the native avian species on the Preserves.

Brown-headed cowbird, an obligate brood parasite was apparently present only as a migrant and wanderer on the Preserves. Seven sightings of individuals, mainly males, were recorded on or over the Preserves. No juveniles were detected indicating that this species may not parasitize nests on the Preserves or if there is parasitism it is in low numbers.

### **3.4 Overall Biological and Conservation Value**

The Preserves are located within the Central Poway/San Vicente Reservoir/North Poway designated MSCP Core Biological Resource Area. Sixteen Core Biological Resource Areas and associated habitat linkages were identified in the MSCP study area. According to the MSCP Plan, Core Biological Resource Areas are defined as generally supporting a high concentration of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere.

The Central Poway/San Vicente Reservoir/North Poway Core Biological Resource Area is connected to two Core Biological Resource Areas to the south – Lake Jennings/Wildcat Canyon-El Cajon Mountain and Mission Trails/Kearny Mesa/East Elliot/Santee and the Hodges Reservoir/San Pasqual Valley Core Biological Resource Area to the north. Biological linkages are found along State Route 67 to the north and south and Poway Road to the west.

To define the core and linkage areas, an extensive geographic information system database of vegetation communities, species locations, elevation, slope, soils, drainages, and other physical parameters were used to develop a habitat evaluation map for the study area. The habitat evaluation map ranks habitat areas as Very High, High, Moderate, or Low based on their potential to support priority coastal California gnatcatcher habitat, and wildlife corridors. According to the MSCP Habitat Evaluation Model, the majority of the habitat within the Preserve is rated as very high to high value with some smaller areas rated as medium to low in value.

The southern coast live oak riparian forest found within Sycamore Canyon Creek that drains the Preserves from the northeast to the southwest is considered MSCP Tier I habitat and supports several special status species including Bell's sage sparrow, red shouldered hawk, white-tailed kite, and orange-throated whiptail. Native grassland also considered MSCP Tier I habitat is found associated with heavy clay soils located along the ridge tops within the northern and eastern portions. This habitat supports special status species including San Diego thorn-mint, California Adder's tongue, and San Diego black tailed jackrabbit. Coastal sage – chaparral scrub, an MSCP Tier II habitat, is present on south facing slopes within the Preserve and supports San Diego thorn-mint and San Diego horned lizard considered special status species.

### **3.4.1 Wildlife Linkages and Corridors**

The Preserves serve as an important connection to other large open space preserves including MCAS Miramar, Mission Trails Regional Park, and Iron Mountain. The San Diego Tracking Team has documented the use of a number of wildlife crossings that surround the Preserves including a few along State Route 67 to the east and underneath Scripps Poway Parkway to the north. It can be assumed that larger mammals regularly move on, off of, and across the Preserves, to and from adjacent open space.

## **4.0 CULTURAL RESOURCES**

San Diego County is characterized by a rich and varied historical past. Cultural resources which reflect this history consist of archaeological remains, historic buildings, artifacts, photographs, oral histories, Native American memories and public documents. This RMP identifies the known cultural resources within Sycamore Canyon and Goodan Ranch Preserves and describes areas of potential resources.

In 2008, an archaeological survey was completed for the Preserve in compliance with the California Environmental Quality Act (CEQA) and County environmental guidelines to assist in continued and future land use and resource protection planning. The results of this study can be found in the report titled *Cultural Resources Phase I Survey and Inventory, Sycamore Canyon and Goodan Ranch Preserves, San Diego County, California* dated November 2008, and is attached as Appendix B (Jordon, Cooley, and Craft 2008). This Phase I inventory involved site records searches, literature reviews, Native American consultation, historic map checks, field survey, and resource documentation. The survey and inventory results were used in the preparation of this RMP.

### **4.1 Site History**

The 10,000-20,000 years of prehistory of the San Diego region can be divided into three periods: Early Prehistoric Period (San Dieguito tradition/complex); Archaic Period (Milling Stone Horizon, Encinitas tradition, La Jolla and Pauma complexes); and Late Prehistoric Period (Cuyamaca and San Luis Rey complexes). No Early Prehistoric Period sites were found in the Preserve. In the southern coastal region, the Archaic Period dates from circa 8,600 years B.P. to circa 1,300 years ago (Warren et al. 1998). During the Archaic Period, the La Jolla/Pauma complexes have been identified. These assemblages indicate that a relatively stable, sedentary, hunting and gathering complex, possibly associated with one people, was present in the coastal and immediately inland areas of San Diego County for more than 7,000 years. Based on currently existing information, two resources appear to date to, or may represent complexes associated with, the Archaic Period.

During Late Prehistoric times, the Preserve would have been within the area commonly associated with the archaeologically defined Cuyamaca complex (True



1970). Numerous Late Prehistoric Period sites, attributable to the Cuyamaca complexes have been identified within the Preserve.

Ethnographically, the Preserve are situated within the traditional territory of the prehistoric Yuman people inhabiting the area at the time of European contact, the Kumeyaay. Some researchers designated the Kumeyaay living north of the San Diego River as 'lipai and those south of the river and into Baja California as Tipai (Langdon 1975:64-70; Hedges 1975:71-83). The Preserve, therefore, lie within the territory defined for the 'lipai. With a history stretching back at least 2,000 years, the Kumeyaay at the point of contact in the late 1700s were settled in permanent villages or rancherias with strong alliances. One of these villages was the village of *Pawaii* (Poway). While the exact location of this village is not certain, Kroeber (1925) and Carrico (in Trafzer and Carrico 1992:53) have indicated a general location for this village in the vicinity of the project property.

This area is directly north of the boundary of the Rancho El Cajon land grant which encompassed El Cajon, Bostonia, Flinn Springs, Lakeside, Santee and areas east. The discovery of gold in 1869 near Julian brought newcomers to the backcountry hoping to prospect their way to wealth, and making effective transportation between the area and the San Diego metropolis a new resource. The Homestead Act of 1862 also drew settlers, and new residents began arriving in the lands between the original ranchos.

The earliest Anglo habitation documented in the project area is a small adobe referred to on an 1876 survey map as "Francisco's house" in the area of present-day Goodan Ranch. While a Charles F. Francisco owned a lumber business in the El Cajon Valley and resided in Lakeside, it is not known whether he is associated with this structure and no further information has been found to identify the owner. Historic occupation of the project area, however, is most visible beginning with the community of Stowe, established in the late 1880s. A detailed history of Stowe and the later occupation at Goodan Ranch is provided by Jacques and Quillen (1983) and will be summarized below with specific reference to the features identifiable on the present landscape.

At its height, the Village of Stowe had 12 families who were immigrants of German and Prussian origin, with most residing in present-day Beeler Canyon and a small number in Sycamore Canyon (Jacques and Quillen 1983). Stowe's post office was established in 1889 and its school district and one-room wooden schoolhouse at the junction of Beeler and Sycamore Canyons in 1890 (Jacques and Quillen 1983). The post office was located on the homestead of Joseph Fischer. Stowe's history, however, is short-lived; the post office was terminated in 1905 and the school district followed in 1906, with a drought and a broken promise of railroads through the area driving habitants elsewhere. The school building no longer stands; it was auctioned off in 1906 and disassembled, with its wood contributing to the construction of a new home elsewhere. Its location has been documented as site CA-SDI-9711 situated on private property near the northern entrance of Goodan Ranch Preserve. The

Fischers, however, were one of the last families to leave the area as they had developed wells to access the water supply. A similar fate befell other small local communities like Fernbrook, which was later absorbed into the growing Ramona community.

During these years, a number of ranches in the Beeler Canyon area did remain active, including those of A.F. Holmes in the present-day Goodan Ranch area, James Doyle north of Goodan Ranch, and M. Joy in Fischer Canyon (Jacques and Quillen 1983). In 1922, the Goodan Ranch area was deeded to Charles Bookprinter, a rancher who eventually purchased the Doyle property among others in the area (Jacques and Quillen 1983). The land fell under its namesake's ownership in 1938, when the land was purchased by B.B. and Iris M. Margolis and then granted to Roger and Mary Chandler Goodan of Los Angeles. The sale made the Goodan's sole owners of all property encompassing Sycamore Canyon. According to Jacques and Quillen (1983), the remnants of an adobe were cleared by the Goodan's after their purchase of the land in order to construct their new one-story stone and wood ranch house. Jacques and Quillen describe the adobe structure as having walls only 2-4 feet in height and speculate that these walls may have been the remnants of what was known as "Francisco's House" in the 1970s.

Based on this information, the adobe wall footings discovered beneath floor of the recently (2003) burned-out Goodan ranch house (Christenson, personal communication 2008) could be the remnants of this adobe. By the 1939 El Cajon 15' quadrangle, the appellation "Stowe" had been replaced by "Goodan Ranch". In 1943, the family added further acreage to their holdings in 1943 at the head of Sycamore Canyon. The Goodan's used their rural ranch for weekend visits and it was supported using well water, with no dedicated irrigation system (Jacques and Quillen 1983). Fred Allbee was brought on as ranch caretaker in the early 1940s, and lived at the ranch with his family, constructing barns, outbuildings and sheds and raising cattle as well as various agricultural products. Some mention of lumber from the old Stowe school being incorporated into Albee's house exists, but it is highly unlikely as the lumber was sold off in 1906 well before his residence. Unfortunately, following an evaluation of Albee's house in approximately 2000, it was destroyed by fire (Christenson, personal communication 2008). Of the remaining structures at the time, all but the walls of the stone ranch house burned in the 2003 Cedar Fire.

In the meantime, caretaker of the ranch, Fred Allbee, participated in the construction of a concrete dam at the reservoir in lower Fischer Canyon, in conjunction with the development of a large seepage reservoir in Fischer Canyon funded by the Soil Conservation Service (Jacques and Quillen 1983). By implementing conservation on individual properties, the service contributed to the overall quality of the life in the regional watershed (NRCS 2008).

Wartime saw changes in land use, as the military stored equipment on the property and the San Diego Aqueduct was constructed through the present-day Preserve.

The aqueduct, known officially as the San Jacinto-San Vicente Project, became necessary to support the thirst of the burgeoning population of wartime San Diego and was intended to alleviate severe water shortages like one experienced in 1944. This historic structure consists of two pipelines: one built in 1947 and the other built in 1954. The pipeline delivered water to San Vicente Reservoir, 1.25 miles east of this portion of the resource, 71 miles from the Colorado River Aqueduct (Autobee 2008). The two pipelines combined had a capacity of 196 cubic feet per second, and ran underground trending northwest-southeast just north of Goodan Ranch bisecting both Preserve (Pourade 1977). Six-foot diameter tunnels were drill bored through the area mountains; the aqueduct's Poway tunnel sits at the northwest corner of Goodan Ranch Preserve, and the 5,700-foot long Fire Hill Tunnel underlies the heart of Sycamore Canyon Preserve.

Fred Allbee served as caretaker of the Goodan Ranch until 1991, when the property was sold to the Cities of Santee and Poway, the State Wildlife Conservation Board, and the County of San Diego (Christenson, personal communication, n.d.). In 2000, the California State Office of Historic Preservation found two of the buildings on the property, a small red-painted wooden house known as Catalpa Cottage and Fred Allbee's house, eligible for the National Register based on their presumed association with Stowe. Unfortunately, Albee's House was burned sometime following this evaluation and before the 2003 Cedar Fire that destroyed all other buildings save the stone ranch house. No further discussion of evaluation before the local Historical Site Board advanced (Christenson, personal communication 2008).

A significant element to the Preserve today is the Stowe Trail. Designated in 2000 as a Community Millennium Trail, the recreational path incorporates the old wagon trail used for travel between the Santee area at San Diego River up Sycamore Canyon into the Poway area (Crafts and Young 2002). The history of this route includes a possible beginning as a wood transportation road that traversed south of what is believed to be Francisco's adobe home that was later incorporated into the Goodan Ranch house. The road from San Diego River at Santee Lakes Regional Preserve north through Sycamore Canyon, through Stowe, and into Beeler Canyon to the northwest of the Preserve was clearly delineated on the 1898 Official Map of San Diego County (Burbeck 1898). Continuing into the early 1900s, this route through Stowe was recorded on USGS maps from 1903 through 1955 as a dirt road and noted on the 1920 Thurston's Auto Road Map as one of the main roads in San Diego County. Currently the entire route from the Preserve to Santee Lakes Regional Preserve is not owned by the County of San Diego and negotiations with United States Marine Corps Air Station about access rights for the public or an ownership transfer have been ongoing (Christenson, personal communication 2008).

#### **4.2 Native American Consultation**

A letter was sent to the Native American Heritage Commission (NAHC) on February 6, 2008. A response letter from Mr. Dave Singleton of the NAHC, dated February



11, 2008 was received via fax on February 11, 2008. A search of the NAHC Sacred Lands File failed to indicate the presence of resources in the immediate project area.

On May 14, 2008, letters were sent to the local Native American contacts provided by the NAHC, requesting further consultation. To date no responses have been received. On May 13, 2008, one of the contacts listed by the NAHC, Mr. Clinton Linton of the Santa Ysabel Band of Diegueño Indians, was retained contractually to provide Native American monitoring services for the field survey, through his company Red Tail Monitoring & Research. A representative from Red Tail Monitoring & Research was present each day during the field survey. Mr. Linton was also requested to provide input of Kumeyaay concerns and information regarding prehistoric resources present within the Preserve.

#### **4.3 Cultural Resource Descriptions**

##### **4.3.1 Prehistoric Archaeological Resources**

###### **Bedrock Milling Sites**

*CA-SDI-9706/P-37-009706*

This resource is located in the Sycamore Canyon Preserve along the drainage in Slaughterhouse Canyon and consists of two bedrock milling features with one milling slick each and an associated lithic scatter of quartzite flakes and debitage. During the current ICF Jones & Stokes survey the two bedrock milling features were identified, but the associated lithic scatter could not be re-identified.

*CA-SDI-12,842/P-37-012842*

This resource is located in the Sycamore Canyon Preserve along the along a small, unnamed tributary of San Vicente Creek, as a one bedrock-milling feature with 4 milling slicks and a ring of stones that are a possible granary base. During the current ICF Jones & Stokes survey the bedrock milling feature with four milling slicks and the possible granary base were re-identified. An additional bedrock milling feature with one milling slick was identified approximately 15 meters west of the original bedrock milling feature.

*CA-SDI-12,843/P-37-012843*

This resource is located in the Sycamore Canyon Preserve along a small, unnamed tributary of San Vicente Creek. It was originally recorded as two bedrock milling features with one milling slick apiece. During the current ICF Jones & Stokes survey the two bedrock milling features were re-identified. A lithic scatter of quartz debitage is located approximately 10 meters south of the bedrock outcrops.

*CA-SDI-13,636/P-37-013636*

This resource is located along the upper Sycamore Canyon drainage, within the Sycamore Canyon Preserve. It was originally recorded as one bedrock-milling feature with one milling slick and no associated artifacts. During the current ICF Jones & Stokes survey the milling feature was re-identified. In addition, one grey metavolcanic domed scraper was observed.

*CA-SDI-19,170/P-37-030080*

This newly identified resource is located in the northeast corner of the Sycamore Canyon Preserve, along an unnamed tributary of San Vicente Creek. It consists of one bedrock-milling feature containing one milling slick.

*CA-SDI-19,171/P-37-030081*

This newly identified resource is located in the northeast corner of the Sycamore Canyon Preserve, along an unnamed tributary of San Vicente Creek. It consists of one bedrock-milling feature containing two milling slicks.

*CA-SDI-19,172/P-37-030082*

This newly identified resource is located along the western slope of an upper elevation ridge in the northeast corner of the Sycamore Canyon Preserve. It consists of one bedrock-milling feature containing three milling slicks.

*CA-SDI-19,173/P-37-030085*

This newly identified resource is located in the north-central area of the Sycamore Canyon Preserve overlooking the Fischer Creek drainage to the west. The resource consists of two bedrock milling features containing at least four milling slicks.

*CA-SDI-19,174/P-37-030086*

This newly identified resource is located in the Sycamore Canyon Preserve overlooking the Fischer Creek drainage to the west. The resource consists of one bedrock-milling feature with two milling slicks.

*CA-SDI-19,175/P-37-030087*

This newly identified resource is located in the north-central area of the Sycamore Canyon Preserve overlooking the Fischer Creek drainage to the west. The resource consists of one bedrock-milling feature containing a single mortar.

*CA-SDI-19,177/P-37-030089*

This newly identified resource is located in the north-central area of the Sycamore Canyon Preserve overlooking the Fischer Creek drainage to the west and Slaughterhouse Canyon to the east. The resource is a bedrock milling feature with one milling slick.

*CA-SDI-19,178/P-37-030090*

This newly identified resource is located in the north-central area of the Sycamore Canyon Preserve, overlooking the Fischer Creek drainage to the west. The resource consists of two bedrock milling features containing a total of three milling slicks.

*CA-SDI-19,179/P-37-030092*

This newly identified resource is located along the Fischer Creek drainage in the north-central area of the Sycamore Canyon Preserve. The resource consists of a bedrock milling feature containing one milling slick.

*CA-SDI-19,180/P-37-030093*

This newly identified resource is located along the Fischer Creek drainage in the north-central area of the Sycamore Canyon Preserve. The resource consists of two bedrock milling features with at least four milling slicks and one associated volcanic flake.

*CA-SDI-19,184/P-37-030100*

This newly identified resource is located within the Goodan Ranch Preserve. This resource is a bedrock milling feature with one basin and one milling slick.

*CA-SDI-19,185/P-37-030101*

This newly identified resource is located within the Goodan Ranch Preserve. This resource is a bedrock milling feature with one milling slick and an associated unifacial mano.

*CA-SDI-19,187/P-37-030105*

This newly identified resource is located in the Sycamore Canyon Preserve along a small, unnamed tributary of San Vicente Creek. The resource is a bedrock milling feature with one milling slick.



#### **4.3.3 Artifact Scatters**

##### *CA-SDI-119/P-37-0000119*

This resource as previously plotted, is situated partially in both the Goodan Ranch and Sycamore Canyon Preserves. It was originally as consisting of core tools and a blade. The site was visited and updated by several subsequent archaeological surveys which identified many more lithic tools. During the current ICF Jones & Stokes survey only five small volcanic flakes and one possible mano fragment could be identified. These artifacts were observed, however, mainly within the exposed ground along Fischer Creek dirt road/trail, as the vegetation was so thick in surrounding area that it severely inhibited examination. The previous surveys had also observed the materials primarily along this road. It should be noted that the current survey recorded a new resource (CA-SD-19,186) that is located adjacent to this same road, approximately 250 meters northeast of currently plotted location of CA-SDI-119. This new site has a similar artifact-content to previous site descriptions for CA-SDI-119. It is possible that CA-SDI-119 was mis-plotted on the original site form, and that CA-SD-19,186 is actually CA-SDI-119. Also possibly suggestive of this is the original site form by Treganza (1950) on which he describes the site location as "1/4 mile upstream from Stowe" (CA-SDI-9707H). The currently plotted location for CA-SDI-119 is downstream from Stowe" (CA-SDI-9707H). The upstream location would place CA-SDI-119 at the presently recorded location for site CA-SD-19,186.

##### *CA-SDI-9704/P-37-009704*

This resource is situated on a knoll top in the Sycamore Canyon Preserve and was originally recorded as a lithic scatter consisting of 12 waste flakes from the reduction of a single basalt cobble. During the current ICF Jones & Stokes survey three flakes were re-identified in the previously recorded location on the west side of the road and three clustered flakes were observed on the east side of the road, thereby expanding the site boundary.

##### *CA-SDI-13,221/P-37-013221*

As originally recorded, this resource is located along the Sycamore Canyon drainage, partially within both the Sycamore Canyon and Goodan Ranch Preserves as well as extending off the Preserve properties to the west. This resource was originally recorded as a lithic scatter. The site was subsequently visited by Bischoff et al. (1995) and was not re-identified. This was attributed to the disturbance from a multi-use trail running through the middle of the resource. During the current ICF Jones & Stokes survey the lithic scatter was also not re-identified. It appears that the construction of a multi-use trail has completely disturbed the integrity of the portion of the site within both the Goodan Ranch and Sycamore Canyon Open Space Preserves.

*CA-SDI-13,223/P-37-013223*

This resource is located within the Goodan Ranch Preserve, along the Sycamore Canyon drainage. It was originally recorded as a sparse lithic scatter. It was relocated during current survey.

*CA-SDI-13,850/P-37-013850*

This resource is located within the Goodan Ranch Preserve. It was originally recorded as a lithic scatter and was re-identified during the current survey. The artifact assemblage at this site may be associated with Archaic occupation in the area.

*CA-SDI-16,515/P-37-016515*

This resource is located within the Goodan Ranch Preserve and is a lithic scatter. It was re-identified during the current survey.

*CA-SDI-16,516/P-37-016516*

This resource is located within the Goodan Ranch Preserve and is a lithic scatter. During the current ICF Jones & Stokes survey the lithic scatter was re-identified.

*CA-SDI-16,517/P-37-016517*

This resource is located within the Goodan Ranch Preserve, south of the Goodan Ranch complex along the bottom of Sycamore Canyon. It was originally recorded as a lithic scatter. Also noted during the current survey was a nearby concrete dam and earthen embankment structure within the Sycamore Creek drainage. This dam and structure are mentioned by Jacques and Quillen (1983) as having been constructed, circa 1950, by the Soil Conservation Service.

*CA-SDI-19,176/P-37-030088*

This newly identified resource is located in the north-central area of the Sycamore Canyon Preserve overlooking the Fischer Creek drainage to the west. The resource is a sparse lithic scatter that consists of one metavolcanic flake, one metavolcanic core, and one jasper flake.

*CA-SDI-19,181/P-37-030095*

This newly identified resource is located along the top of the northernmost ridge of the Sycamore Canyon Preserve. The resource consists of a sparse lithic scatter that includes one jasper cortex flake, a chunk of jasper, and three pieces of white quartz debitage.

*CA-SDI-19,182/P-37-030097*

This newly identified resource is located on a knoll in Sycamore Canyon Preserve. This resource consists of a sparse lithic scatter including one black volcanic flake, one green volcanic flake, three volcanic flakes, five quartzite flakes, and at least four white quartz flakes.

*CA-SDI-19,183/P-37-030099*

This newly identified resource is located on the toe of a knoll in the Sycamore Canyon Preserve. This resource is a lithic scatter consisting of at least 20 flakes of various lithic materials.

Major campsite/habitation sites

*CA-SDI-9705/P-37-009705*

This resource is located in the Sycamore Canyon Preserve along the drainage in Slaughterhouse Canyon and consists of 10 bedrock milling features and an associated lithic scatter. During the current ICF Jones & Stokes survey, nine bedrock milling features with at least 15 milling slicks and one mortar, and an associated lithic scatter were re-identified.

*CA-SDI-9708/P-37-009708*

This resource is located in the Goodan Ranch Preserve at the confluence of three tributaries that meet to form the Sycamore Canyon drainage. It is a temporary camp containing bedrock milling features and associated artifacts.

*CA-SDI-16,518/P-37-016518*

This resource is located within the Goodan Ranch Preserve, east of the Goodan Ranch complex. This resource was originally recorded as a lithic scatter and was relocated during the current survey. Based on the type of artifacts at this site, this may represent an Archaic occupation site.

*CA-SDI-17,151/P-37-025793*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. This resource was originally recorded as a temporary camp consisting of six bedrock milling features with at least 16 milling slicks and basins, and three associated pottery sherds. During the current ICF Jones & Stokes survey, the six bedrock milling features and two pottery sherds were re-identified.



*CA-SDI-17,152/P-37-025794*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. It was originally recorded as a site containing four bedrock milling features (BMF) with at least six milling slicks, and three associated manos. The six milling features originally noted were re-identified during the current ICF Jones & Stokes survey.

*CA-SDI-17,155/P-37-025799*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. It was originally recorded as one bedrock milling feature containing one milling slick and one basin. During the current ICF Jones & Stokes survey, this bedrock milling feature was re-identified. An additional bedrock milling feature with one milling slick was also identified, located approximately five meters west of the original feature.

*CA-SDI-19,186/P-37-030103*

This newly identified resource is located along the Fischer Creek drainage in the north-central area of the Sycamore Canyon Preserve. The resource consists of a considerable number of prehistoric artifacts including at least 15 metavolcanic flakes, three jasper flakes, one quartzite flake, four volcanic scrapers (including one scraper plane), one mano, one mano fragment, and one Cottonwood point. Several of the metavolcanic flakes contain a slight patina. The construction of a large earth dam and overflow channel, circa 1950, appears to have disturbed the site, as the eastern edge of this resource extends to the western side of the channel. This resource resembles the description and location given originally by Treganza on his 1950 site form for CA-SDI-119, suggesting that this resource may possibly be CA-SDI-119.

Isolates

*P-37-015294, P-37-024271, P-37-030079, P-37-030083, P-37-030084, P-37-030091, P-37-030094, P-37-030096, P-37-030098, P-37-030102, P-37-030104*

These resources were all recorded as isolated lithic or ground stone items. For more details please see the site forms or report (Jordan et al 2009).

*P-37-024963, P-37-024964, P-37-024965, P-37-024966, P-37-024967, P-37-024968, P-37-024969*

These isolates were previously recorded but were not relocated during the current ICF Jones and Stokes survey.

*P-37-030078*

This newly identified resource consists of a broken isolated prehistoric Brownware pottery sherd.

Multi-Component Resources

*CA-SDI-17,154/H/P-37-025798*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. This resource was originally recorded as a historic stone foundation, along with one mano fragment and one core hammerstone located approximately 10 meters from the stone foundation. During the current ICF Jones & Stokes survey the stacked rock stone foundation was re-identified, but the mano fragment and core hammerstone could not be re-identified due to the thick vegetation.

**4.3.2 Historic Resources**

*CA-SDI-9707H/P-37-009707*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. Joseph Fischer claimed a homestead in 1896 that encompasses this site (Crafts and Young 2002). This resource was originally recorded by Quillen (1983) as the remains of the Joseph Fischer homestead and the Stowe Post Office of the early 1880's to 1900. The current ICF Jones & Stokes survey determined that the previously recorded features that were identified appear to remain as previously recorded.

*CA-SDI-9712H/P-37-009712*

This resource was originally recorded as the Goodan Ranch complex. Jacques recorded the main Goodan Ranch house constructed of stone and wood, one two-story wooden water tank house, three small wooden cottages, five to six tin equipment sheds and garages, one hay and dairy barn, two active wells (one of which has a windmill), a two acre olive orchard, one concrete dam on Sycamore creek, two large native oak groves, and scattered ranch equipment which dates from the nineteenth century. In 1938, the Goodan family purchased all of the land within Sycamore and Fischer Canyons, which included the community of Stowe (CA-SDI-9707H) and the remains of an adobe structure located at the present site of the main Goodan Ranch house. In 2003, the Cedar Fire burned down all of the previously recorded structures in the complex. In 2004 a prehistoric was recorded. During the current ICF Jones & Stokes survey, the stone wall remains of the main Goodan Ranch house, a stacked rock water tank platform with adjacent rectangular concrete pads, one metal windmill, one concrete dam along Sycamore Creek, an olive

orchard, and one corrugated metal shed were identified. Adobe foundations were observed under the burned-out floors of the main Goodan Ranch house, and appear to be the remains of the “Francisco House” that was razed in 1938 during the construction of the main Goodan Ranch house (Jacques and Quillen 1983). The previously recorded prehistoric artifact scatter was not identified during the current survey, possibly due to obscuring vegetation in the area.

*CA-SDI-12,821H/P-37-012821*

This resource was originally recorded by Gross et al. (1992) as the Boulder Oaks Spur of the Foster Truck Trail, which was constructed around 1878. During the current ICF Jones & Stokes, two sections of the Trail were identified within the Sycamore Canyon Preserve.

*CA-SDI-12,861H/P-37-012861*

This resource is located in the Sycamore Canyon Preserve along a ridge about 100 meters south of the historic Foster’s Truck Trail on the top of a ridge near a cluster of eucalyptus trees in the source area of Beeler Canyon. It was originally recorded as the remains of a historic structure. This resource was present by 1939 as shown on the El Cajon 15’ USGS map. This resource, with the additional historic trash scatter, appears to remain intact as previously recorded. Crafts and Young (2002) note a homestead claim by Frederick Reetzke in 1896 was made about 400 feet northeast of the site.

*CA-SDI-17,153H/P-37-025797*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. This resource was originally recorded as a small historic period dam constructed of stacked rocks along the Fischer Creek bed. During the current ICF Jones & Stokes survey the remnants of this stacked rock dam were re-identified and it appears to remain as originally recorded.

*CA-SDI-17,156H/P-37025800*

This resource is located within the Goodan Ranch Preserve and was originally recorded as the location of the homestead of Cornelius Butler, which currently consists of three large eucalyptus trees in a cultivated field and an associated Quaker glass bottle with metal lid. During the current ICF Jones & Stokes survey the eucalyptus trees were re-identified, but no associated artifacts were observed as the vegetation was very thick in this area.



*CA-SDI-17,157H/P-37025799*

This resource is located within the Goodan Ranch Preserve, south of the Goodan Ranch complex. This resource was originally recorded as a historic trash scatter consisting of bottle and jar glass, blue glass, metal cans, an abandoned Plymouth car, a large broken ceramic item, and sewer pipes. During the current ICF Jones & Stokes survey the historic scatter was re-identified with bottle glass, the abandoned car, a bird cage stand, metal cans, metal fragments, a metal turntable, and ceramic crockery fragments. The resource appears to extend up the small drainage bottom, off of the Preserve property. The vegetation was very thick and visibility was only fair to poor within the drainage basin.

*CA-SDI-17,158H/P-37-025802*

This resource is located within the north-central portion of the Sycamore Canyon Preserve, along the Fischer Canyon tributary of the Sycamore Canyon drainage. This resource was originally recorded as the Frontiersman Black Powder Club target shooting range consisting of one cement foundation, three engraved cement post hole pads, and a target berm. During the current ICF Jones & Stokes survey these features were re-identified and it appears to remain as originally recorded.

*P-37-030106*

This newly identified resource is an artificially constructed dam and reservoir that does not appear on the 1939 El Cajon USGS 15' quadrangle, but appears to be present on the 1955 San Vicente Reservoir 7.5' USGS quadrangle. This dam was indicated by Jacques and Quillen (1983) to have been constructed by the Soil Conservation Service, circa 1950. Two features are present on the 1955 map: a small reservoir and a larger feature that appears to be recorded as a diversionary structure such as a levee. Recent aerial views of this resource show evidence of the larger structure possibly serving as a reservoir as described by Albee (Jacques and Quillen 1983). It seems possible that the larger feature was blown out from erosion at some time in the past and consequently destroyed any evidence of the smaller feature.

*San Diego Aqueduct/ P-37-0300107*

This resource is a portion of the first San Diego Aqueduct. This historic structure consists of two pipelines: one built in 1947 and the other built in 1954. The pipeline delivered water to San Vicente Reservoir, 1.25 miles east of this portion of the resource, from the Colorado River Aqueduct. The entire portion of the aqueduct recorded here is subsurface. Several features along the pipeline are likely associated. A cylindrical concrete feature is present at the lowest point of the property within Goodan Ranch as well as at each end of the pipeline as it tunnels through the Sycamore preserve hills. These features are valves or regulators providing isolation or pressure management abilities. The construction of the

aqueduct was important due to a severe water shortage in 1944. The water shortage at this time influenced the forming of the San Diego Water Authority and the US Navy's initial construction phase of the aqueduct (Pourade 1977).

#### *Stowe Road/ P-37-030197*

This resource is a dirt road that has been in use since at least 1898 based on early San Diego County maps and USGS 1903 maps. This wagon route followed Sycamore Canyon from Santee at San Diego River north through the turn-of-the-19th-century community of Stowe and into Poway. The recorded portion of the road includes the Goodan Ranch Preserve entrance as the north end, south along the dirt trail where the path leaves the Preserve about 1 ¾ miles south-southwest. The resource continues south-southwest beyond the Preserve down Sycamore Canyon to San Diego River. The road, or parts of it, may have been present earlier than 1898 considering the possibility of an even older log or wood transport road potentially associated with Francisco's home (Jacques and Quillen 1983). The route is also present in much the same place on the 1955 San Vicente Reservoir 7.5' USGS quadrangle. The associated community of Stowe is still evident in nearby archaeology sites along this route. Today, the south portion of the early road is incorporated into the Stowe Trail that was designated a Community Millennium Trail in 2000 by the White House Millennium Council.

## **4.4 Resource Significance**

### Prehistoric Synthesis

While the exact relationship between the sites in the Preserve and those in the surrounding vicinity cannot be discussed in detail at this stage, some observations can be made in regard to possible settlement connection between the sites. Though few chronological indicators were identified during site recordation, the presence of mortars and pottery at main Preserve sites such as CA-SDI-17,151 and CA-SDI-17,152, and a Cottonwood Triangle project point at site CA-SD-19,186, strongly suggests that these sites were inhabited during the Late Prehistoric Period.

A significant site patterning was recently described by Carrico and Cooley (2005) for the village of *Pámu* located approximately ten kilometers northeast of the Preserves and may be reflected in the Sycamore Canyon and Goodan Ranch Preserves. This village pattern may be part of an overall fission/fusion settlement pattern model for the Kumeyaay (Ipai/Tipai), described by Carrico (2003) for the southern San Diego County area during Late Prehistoric times, which reflected seasonal movements by local prehistoric groups to maximize resource utilization. Carrico envisioned a bi-polar pattern for a single village group. In the model, fusion involves two large concentrated sites, located a considerable distance apart. Fission, involves a number of smaller habitation sites that were more densely populated distributed over the area between the two large concentrated sites. The two large-scale habitation sites would have been seasonally occupied, while the smaller sites were inhabited

as the village split up and moved in smaller groups between the two major site locations. At these smaller sites, focused activities took place to exploit particular resources in that site vicinity. Carrico proposed that one such village group moved between a main site seasonal location, *Pámu* near Ramona (summer/fall), to another, Tukumak at Mesa Grande (winter/early spring) some 35 kilometers away. Willey and Dolan (2004:127) speculate that site CA-SDI-122 and the complex of smaller sites in proximity to it in the San Vicente Creek valley may represent a similar main site location for another bipolar village arrangement similar to that proposed by Carrico for *Pámu*/Tukamak. If so, then site loci located in the Preserves may represent, either part of the dispersed main village or fusion point in the pattern, or one of the smaller more intensely occupied resource exploitation sites as part of the fission part of the pattern.

With this as background, the pattern of prehistoric settlement and individual site function reflected by the identified resources identified during the current Phase I survey can be generally analyzed. Of the 58 prehistoric sites and isolates identified in the two preserves, seven appear to represent either village or major campsite locations based on the complexity of the elements observed. These sites, CA-SDI-9705, CA-SDI-9708, CA-SDI-16,518, CA-SDI-17,151, CA-SDI-17,152, CA-SDI-17,155, and CA-SD-19,186 contain a variety of artifact classes and content, including moderately dense scatters of flaked-lithic tools and tool fragments, and flaked stone tool manufacturing debitage; ground-stone tools and milling features; pottery; organic midden deposits; and faunal food remains indicative of areas of more intensive habitation. The other 51 prehistoric sites and isolates in the Preserves appear to represent locations at which special tasks and/or particular resource procurement activities occurred.

It seems probable that these habitation sites, while being more substantial than other sites in the Preserves, may represent only satellite occupations or significant campsites as part of a larger dispersed resource procurement subsistence pattern. Other, apparently more substantial, nearby sites such as CA-SDI-4,608, or the ethnographic village of *Pauwahi*, or perhaps the previously identified site complex (principal site CA-SDI-122) located approximately five kilometers to the southeast along the bottom of the San Vicente Creek Valley, may in fact represent the major village focus for the area (Raven-Jennings and Smith 1999; Rhodes and Carrico 1979 Pignuolo 1992; McCown 1945). The cluster of habitation sites, CA-SDI-17,151, CA-SDI-17,152, CA-SDI-17,155, CA-SD-19,186, and CA-SDI-9708, appears to be focused on the upper Sycamore/Fischer Canyon drainage. It seems probable that most of the smaller, immediately adjacent, milling station and lithic scatter sites within the catchment of this drainage represent associated specialized resource procurement and/or processing locations proximate to the main loci. Many of these sites appear to be associated with acorn and/or seed gathering and processing.

Sites CA-SDI-13,850 and CA-SDI-16,518, in the Goodan Ranch Preserve, may also be associated with the Late Prehistoric pattern of sites, but it also seems possible that they may be associated with an earlier prehistoric occupation in the area. The



artifact assemblage at the sites consisting of manos, hammerstones, scrapers and scraper planes, along with patinated volcanic debitage, and with no Late Prehistoric artifacts identified, is at least suggestive of a possible Archaic Period occupation in the area. The presence of an extensive Archaic Period component at site CA-SDI-4,608 in nearby Beeler Canyon, also indicates the possibility of satellite sites of similar antiquity in the area (Raven-Jennings and Smith 1999). Another site in the general area, possibly associated with this earlier pattern is CA-SDI-13,536, located along San Vicente Creek to the southeast of the Preserves (Willey and Dolan 2004:53)

Also noteworthy, perhaps by their absence, in Preserve were Yoni features. These natural formations within the granitic boulders of the Peninsular Range batholith are presumed to represent female genitalia. Human involvement in the formation of Yoni features is the subject of some debate in the archaeological community, though there is a general acceptance that the features played a symbolic role in Kumeyaay tradition. Several of these features were noted in the Boulder Oaks Preserve three kilometers to the east (Jordan et al. 2007) and along the San Vicente Creek Valley to south and southeast (Willey and Dolen 2004). It would appear possible that the near absence of granodiorite bedrock in the Preserves, the material in which these features are most commonly found, could be largely responsible for this absence.

Based on the limited survey data, then, it appears that future archaeological investigations at the sites in the Preserve are likely to contribute data to better define Late Prehistoric Period settlement and subsistence patterns, not only for the Poway and Ramona area, but for the southern County area in general. It also appears that future research at the sites in the Preserves may be able to contribute fundamental data which will provide information for a better understanding of prehistoric lithic raw material procurement patterns for the Poway and Ramona area of the county.

Sites CA-SDI-5496, CA-SDI-12929, CA-SDI-12930 have been evaluated (through sub-surface testing) for significance under CEQA and were found not to be significant. P-37-015524, P-37-024043, and P-37-029813 are considered not significant because they are isolates. The modern petroglyphs, P-37-030076, are not considered prehistoric or historic resources; they were recorded to provide context for the other resources in the Preserve.

### Historic Synthesis

The historic archaeology sites within the Preserve present a very good picture of life in the American Period in San Diego County. The village of Stowe holds much promise for future research on the social and economic patterns of the late 1800s. Stowe was a small farming community of German and Prussian immigrants with limited communal resources. The village consisted of dispersed homesteads, including their respective farm lands, and a school house. The post office was located in different private home. Foundations, privies and remnants of other farming resources still exist. This is rare in San Diego County because development often

destroys such historic resources. While occupation of village of Stowe was of very short duration, no detailed study has been made of the people, farming practices, and hydrologic issues which may have contributed to the rapid decline.

Following the decline of the Village of Stowe, the Preserve became part of a vacation ranch for a wealthy family. While some crops and stock were raised it was not to be a working ranch. This continued until the property was acquired by government agencies dedicated to keeping it as an open space preserve.

Many additional historic resources are part of the Preserve. The San Diego Aqueduct, though underground in the Preserve, has an important history to San Diego. Various dams and garbage dumps contain much information about life in an inland valley.

The Stowe Trail is a significant part of the history of this area. Designated in 2000 as a Community Millennium Trail, the recreational path incorporates the old wagon trail used for travel between the Santee area at San Diego River up Sycamore Canyon into the Poway area (Crafts and Young 2002). The history of this route includes a possible beginning as a wood transportation road that traversed south of what is believed to be Francisco's adobe home that was later incorporated into the Goodan Ranch house. The road from San Diego River north through Sycamore Canyon, through Stowe, and into Beeler Canyon to the northwest of the Preserves was clearly delineated on the 1898 Official Map of San Diego County (Burbeck 1898). Continuing into the early 1900s, this route through Stowe was recorded on USGS maps from 1903 through 1955 as a dirt road and noted on the 1920 Thurston's Auto Road Map as one of the main roads in San Diego County. It was undoubtedly used by the Goodan family to get to their ranch.

## **5.0 RESOURCE MANAGEMENT**

### **5.1 Management Goals and Objectives**

Management of the natural and cultural resources within the Preserve will be guided by the general goals and objectives of both the County and the MSCP.

#### **5.1.1 County-Specific**

County-specific goals and objectives used to guide the management of resources within the Preserve can be found in the County Strategic Plan, the DPR Strategic Plan, as well as the Lakeside Community Plan. The County's overall goal or mission, as indicated in the 2009-2014 Strategic Plan, is to provide the residents of San Diego County with superior County services in terms of quality, timeliness and value in order to improve the region's quality of life. The Strategic Plan for Parks and Recreation is closely aligned with the County's strategic initiatives.

The DPR Strategic Plan 2008-2013, outlines the department's priorities for accomplishing its mission over a five-year period. The overall goal or mission of DPR is to provide opportunities for high quality parks and recreation experiences and to preserve regionally significant natural and cultural resources. DPR makes this mission a reality through programs that create healthy communities, protect valuable natural and cultural resources, provide recreation opportunities, reduce crime and vandalism, and foster economic development.

In addition, the Lakeside Community Plan provides goals and policies which are designed to fit the specific or unique circumstances existing within this community. Goals provided in this plan seek to preserve Lakeside's rural atmosphere and unique resources, and provide a wide variety of recreational activities and facilities which will meet the needs and enrich the lives of all residents of Lakeside. To this end, the plan provides policies and recommendations which are meant to guide the allocation of County resources towards prescribed outcomes consistent with the goals.

#### **5.1.2 MSCP-Related**

The MSCP Plan and the County's Subarea Plan provide both general and segment-specific goals and objectives. The Preserve is located within the Metro-Lakeside-Jamul Segment of the MSCP Subarea Plan and, as discussed in Section 3.4, is located within an area of the Central Poway/San Vicente Reservoir/North Poway Core Biological Resource Area, which is adjacent to biological linkages along State Route 67 to the north and south and Poway Road to the west. The overall MSCP goal is to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitat, thereby preventing local extirpation and ultimate extinction. This is intended to minimize the need for future listings, while enabling economic growth in the region.



In order to assure that the goal of the MSCP Preserve is attained and fulfilled, management objectives for the County of San Diego MSCP Subarea are as follows:

1. To ensure the long-term viability and sustainability of native ecosystem function and natural processes throughout the MSCP Preserve.
2. To protect the existing and restored biological resources from disturbance-causing or incompatible activities within and adjacent to the MSCP Preserve while accommodating compatible public recreational uses.
3. To enhance and restore, where feasible, the full range of native plant associations in strategic locations and functional wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat.
4. To facilitate monitoring of selected target species, habitats, and linkages in order to ensure long-term persistence of viable populations of priority plant and animal species and to ensure functional habitats and linkages.
5. To provide for flexible management of the MSCP Preserve that can adapt to changing circumstances to achieve the above objectives.

### **5.1.3 Management Directives and Implementation Measures**

Based on the above management goals and objectives, recommended management directives have been identified. In accordance with the Framework Management Plan, the ASMDs have been designated as Priority 1 or Priority 2. This designation recognizes the fact that many of the directives cannot be immediately implemented, but instead will occur over the life of the MSCP. The ability to implement and the timing of many of the management directives will be directly related to the availability of funding in any fiscal year and on the priority. The priorities are, therefore, intended to assist in decisions on where and how to spend limited funds. Priority designations are as follows:

Priority 1: Directives that protect the resources in the Preserve and the MSCP Preserve, including management actions that are necessary to ensure that sensitive species are adequately protected.

Priority 2: Directives other than those required for sensitive species status and other long-term items that may be implemented during the life of the MSCP as funding becomes available.

The management directives provided in this RMP have been divided into five elements: A) Biological Resources, B) Vegetation Management, C) Public Use, Trails, and Recreation, D) Operations and Facility Maintenance, and E) Cultural Resources.

## **5.2 Biological Resources Element (A)**

### **5.2.1 Biological Monitoring**

Biological monitoring will be performed onsite to gather information that will assist DPR in making land management decisions to conform to MSCP goals and objectives, as well as DPR objectives. The biological monitoring that will occur will be designed to guide decisions at the individual preserve level. It is recognized that subregional monitoring has been designed to answer concerns and objectives on a larger scale. Subregional monitoring is occurring at Sycamore Canyon and Goodan Ranch Preserves. While objectives of individual preserve and subregional monitoring may be different, subregional monitoring methods that have been developed or are under development may assist monitoring methods and decisions at the preserve level for particular species and habitats.

The key to successful monitoring at the individual preserve level, such that data gathered is not duplicative and meets individual preserve level objectives, is close coordination with stakeholder groups that are performing subregional monitoring, sharing of data, future plans and schedules and keeping abreast of monitoring methods as they are developed. To ensure uniformity in the gathering and treatment of data, a (SANDAG) land management working group has been formed and will designate a land manager who will assist jurisdictions in coordinating monitoring programs, analyzing data, and providing other information and technical assistance. The DPR will work closely with this group.

MSCP covered species have been prioritized for monitoring by San Diego State University (SDSU) in the document *San Diego Multiple Species Conservation Program Covered Prioritization* (Regan et al., 2006). Subregional monitoring methods have been developed for rare plants (McEachern et al, 2007) and animals (USFWS, 2008). These references will assist DPR in developing monitoring methods at the preserve level, as well as the management directives that are identified for specific species in this document.

#### **Management Directive A.1 – Conduct habitat monitoring to ensure MSCP goals and DPR objective are met (*Priority 1*)**

**Implementation Measure A.1.1:** DPR will conduct habitat monitoring at five-year intervals. Habitat monitoring will address both temporary and permanent habitat changes as well as habitat value. The main product of this monitoring will be a report which will include a discussion of monitoring objectives, monitoring methods to meet those objectives and an updated vegetation community map.

**Implementation Measure A.1.2:** DPR will conduct general wildlife and rare plant surveys at five-year intervals utilizing and refining baseline monitoring methods to facilitate trend and distribution status analysis. This information will be included in the habitat monitoring report.

**Implementation Measure A.1.3:** DPR will conduct monitoring for invasive plant species to assess invasion or re-invasion by exotic plant species within the Preserve. These surveys will focus on areas where invasive, non-native plants have been detected in the past, but also look for new occurrences in the Preserve.

As discussed in Section 3.4, even though the Preserve does not lie within a primary linkage, it is located within an area of the Central Poway/San Vicente Reservoir/North Poway Core Biological Resource Area, which is adjacent to biological linkages along State Route 67 to the north and south and Poway Road to the west. Additionally, the Preserves serve as an important connection to other large open space preserves including MCAS Miramar, Mission Trails Regional Park, and Iron Mountain. Wildlife movement has been documented by the use of wildlife crossings that surround the Preserves. Larger mammals regularly move on, off of, and across the Preserves, to and from adjacent open space. Therefore, while corridor monitoring within the Preserves will take place at the preserve-level, it is anticipated that it will provide data for better understanding movement on a regional scale.

#### **Management Directive A.2 – Meet the corridor monitoring requirements of the MSCP (Priority 2)**

**Implementation Measure A.2.1:** DPR will conduct corridor monitoring at five-year intervals in conjunction with habitat monitoring and general wildlife and rare plant surveys (as described in implementation measures A.1.1 and A.1.2). The main product of this monitoring will be a report documenting the results of the current assessment of habitat linkage function including a list of focal species detected.

#### **5.2.2 MSCP Covered Species-Specific Monitoring and Management Conditions**

Not all species occurring within the Preserves are expected to require species-specific management. It is expected, rather, that other management directives and implementation measures outlined under the Biological Resources and Vegetation Management elements should be sufficient to protect and manage optimal habitat conditions for most, if not all, species to maintain and/or thrive within the Preserve. However, there are some species listed as MSCP Covered Species in the County's Subarea Plan which require additional management measures, particularly if monitoring indicates that the general guidelines are not sufficient to maintain acceptable population levels. Table 3-5 of the Final MSCP Plan (City of San Diego 1998) provides management and/or monitoring measures for specific MSCP species.

In addition, in the document *San Diego Multiple Species Conservation Program Covered Prioritization* (Regan et al, 2006), SDSU has prioritized the MSCP covered



species for monitoring. The species were classified as Risk Group 1 (most endangered), Risk Group 2 (moderately endangered), and Risk Group 3 (less endangered). Next, the threats/risk factors facing the species were identified and ranked as high, moderate, or low degree of threat to the species. Only management conditions addressing high and moderate threats for Risk Group 1 species will be discussed in this RMP. Two Risk Group 1 species currently occur within the Preserves.

### **Management Directive A.3 - Comply with applicable conditions of coverage for MSCP Covered Species (*Priority 1*)**

***Implementation Measure A.3.1:*** Implement the species-specific monitoring and management conditions as listed in Table 3-5 of the MSCP (City of San Diego 1998) and *San Diego Multiple Species Conservation Program Covered Prioritization* (Regan et al., 2006) for all MSCP Covered Species detected within the Preserve.

The conditions of coverage for those species currently known to occur in the Preserves are listed below followed by an explanation of how monitoring and management activities in the Preserves will comply.

#### San Diego Thorn-mint (*Acanthomintha ilicifolia*)

*Monitoring:* Table 3-5 – Management Plans/Directives, SDSU – Risk Group 1

*Management Conditions:* Table 3-5 states area-specific management directives must include specific measures to protect against detrimental edge effects from surrounding development. Edge effects are addressed through multiple implementation measures under management directives D.6 and D.7.

SDSU identifies the following threats for San Diego thorn-mint: (1) habitat loss due to urban development and (2) nonnative invasives plant species. Habitat loss threats will be identified through habitat monitoring as described under implementation measure A.1.1. Nonnative invasive plant species will be addressed under implementation measure A.1.3 and management directives B.2 and B.3.

#### Variegated Dudleya (*Dudleya variegata*)

*Monitoring:* Table 3-5 – Management Plans/Directives, SDSU – Risk Group 2

*Management Conditions:* Table 3-5 states area-specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects to this species, including effects caused by recreational activities. Species-specific monitoring is addressed

through implementation measure A.1.2. Edge effects are addressed through multiple implementation measures under management directives D.6 and D.7.

Willow Monardella (*Monardella linoides* ssp. *viminea*)

*Monitoring:* Table 3-5 - Habitat Based, SDSU - Risk Group 3

*Management Conditions:* Table 3-5 states area-specific management directives must include specific management measures to increase populations, including specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire.

Management measures to reduce the risk of catastrophic fire are addressed through vegetation management implementation measure B.4.3. Management measures to increase populations and address autecology and natural history of the species are addressed below in implementation measure B.1.1.

San Diego Horned Lizard (*Phrynosoma coronatum blainvillii*)

*Monitoring:* Table 3-5 - Site Specific, SDSU - Risk Group 3

*Management Conditions:* Table 3-5 states area-specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.

No Argentine ants were observed within the Preserve and no landscaping on-site is proposed. Edge effects are addressed through multiple implementation measures under management directives D.6 and D.7.

Orange-Throated Whiptail (*Cnemidophorus hyperythrus beldingi*)

*Monitoring:* Table 3-5 - Site Specific, SDSU - Risk Group 3

*Management Conditions:* Table 3-5 states area-specific management directives must address edge effects.

Edge effects are addressed through multiple implementation measures under management directives D.6 and D.7.

Cooper's Hawk (*Accipiter cooperii*)

*Monitoring:* Table 3-5 - Habitat Based, SDSU - Risk Group 3

*Management Conditions:* Table 3-5 states area-specific management directives must include 300-foot impact avoidance areas around active nests and minimization of disturbance in oak woodlands and oak riparian forests.

No nesting territories were observed within the Preserves during the 2008 surveys; however future detection will be addressed through general wildlife surveys (as described in implementation measure A.1.2). Although no future projects are anticipated, any proposed impacts will be conditioned to avoid nests and minimize disturbance to oak and riparian forests present on-site.

Northern Harrier (*Circus cyaneus*)

*Monitoring:* Table 3-5 - Habitat Based, SDSU - Risk Group 3

*Management Conditions:* Table 3-5 states area-specific management directives must: (1) include an impact avoidance area (900 feet or maximum possible within the preserve) around active nests.

No nesting territories were observed within the Preserve during the 2008 surveys; however future detection will be addressed through general wildlife surveys (as described in implementation measure A.1.2).

Golden Eagle (*Aquila chrysaetos*)

*Monitoring:* Table 3-5 - Habitat Based, SDSU - Risk Group 2

*Management Conditions:* Table 3-5 includes conditions for areas with nest sites. No nesting territories were observed within the Preserve during the 2008 surveys; however future detection will be addressed through general wildlife surveys (as described in implementation measure A.1.2).

Burrowing Owl (*Athene cunicularia*)

*Monitoring:* Table 3-5 – Area-specific Management Directives, SDSU – Risk Group 1

*Management Conditions:* Table 3-5 includes conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management, and enhancement of burrowing owl nesting and foraging requirements.

No nesting territories were observed within the Preserve during the 2008 surveys; however future detection will be addressed through general wildlife surveys (as described in implementation measure A.1.2).

SDSU identifies the following threats for burrowing owl: (1) habitat loss due to development and (2) nonnative invasives plant species. Habitat loss threats will be identified through habitat monitoring as described under implementation measure A.1.1. Nonnative invasive plant species will be addressed under implementation measure A.1.3 and management directives B.2 and B.3.

Western Bluebird (*Sialia mexicana*)

*Monitoring:* Table 3-5 - Habitat Based, SDSU - Excluded

*Management Conditions:* None

No nesting territories were observed within the Preserve during the 2008 surveys; however future detection will be addressed through general wildlife surveys (as described in implementation measure A.1.2).

Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)

*Monitoring:* Table 3-5 - Habitat Based, SDSU - Risk Group 3

*Management Conditions:* Table 3-5 states area-specific management directives must include maintenance of dynamic processes, such as fire, to perpetuate some open phases of coastal sage scrub with herbaceous components.

Coastal sage scrub was present in the Preserves prior to the 2003 Cedar Fire. This habitat has now converted to coastal sage-chaparral scrub and is found on south facing slopes within the Preserves. This habitat will be maintained through vegetation management implementation measure B.4.3.

Southern Mule Deer (*Odocoileus hemionus*)

*Monitoring:* Table 3-5 - Habitat Based and Corridor Sites, SDSU - Risk Group 3

*Management Conditions:* None



Mountain Lion (*Felis concolor*)

*Monitoring:* Table 3-5 – Habitat Based and Corridor Sites, SDSU – Risk Group 3

*Management Conditions:* None

**Management Directive A.4 – Coordinate with San Diego County Water Authority and San Diego Gas & Electric who retain easements within the Preserves (Priority 1)**

**Implementation Measure A.4.1:** DPR will work with San Diego County Water Authority and San Diego Gas & Electric to ensure work crews access their infrastructure on established trails within the Preserve and avoid and/or minimize tree maintenance where there are known active raptor nests.

**5.2.3 Non-Native Invasive Wildlife Species Control**

**Management Directive A.5 – Reduce, control, or where feasible eradicate invasive, non-native fauna known to be detrimental to native species and/or the local ecosystem (Priority 2)**

Invasive, non-native species detected within the Preserves during the 2008 surveys include European starling and brown-headed cowbirds. These species do not currently appear to be posing an immediate threat to native species and/or the local ecosystem; however, they have potential to out compete native species for valuable resources.

**Implementation Measure A.5.1:** DPR will conduct surveys for the presence of invasive, non-native wildlife species of management concern, including European starlings and cowbirds, at five-year intervals in conjunction with habitat monitoring and general wildlife surveys (as described in implementation measures A.1.1 and A.1.2).

**Implementation Measure A.5.2:** If invasive, non-native species are detected within the Preserves and detrimental effects of these species are noted, preparation and implementation of a trapping and removal program, or other means of humane control, will be initiated.

**Implementation Measure A.5.3:** On a case-by-case basis, some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground- and shrub-nesting birds, lizards, and other sensitive species from excessive predation. If implemented, the program would only be on a temporary basis and where significant problem has been identified and therefore needed to maintain balance of wildlife in the Preserves and the MSCP Preserve. The program would be operated in a

humane manner, providing adequate shade and water, and checking all traps twice daily. Signage at access points and noticing of adjacent residents will inform people that trapping occurs, and how to retrieve and contain their pets.

**Implementation Measure A.5.4:** DPR will institute an equestrian education program regarding the potential negative impacts to native ecosystems from the accumulation of non-point source pollutants (e.g., increased potential for occurrence of cowbirds) in staging areas and on frequently used trails. This could be accomplished through implementation of a signage program and interaction between park staff and trail users. See also implementation measure B.3.2.

**Implementation Measure A.5.5:** DPR will post signs to encourage clean up by equestrian users of staging areas to keep it free of non-point source pollutants that may attract cowbirds or other invasive, non-native species.

#### **5.2.4 Future Research**

The MSCP Preserve presents a rich array of research opportunities for the academic and professional communities, primarily in disciplines related to biology, ecology, and natural resources management, but also ranging to environmental design, sociology, and park use and administration. The County of San Diego encourages research within the MSCP Preserve in order to gain valuable information unavailable through other means.

There are a multitude of unanswered questions posed by the development of a multiple species and habitat system where little literature or previous research exists on the majority of species inhabiting the region. In addition, research on vegetation associations and habitats, natural regeneration, restoration, fragmentation, edge effects, genetics, viability, predation, wildlife movement, and much more, would be useful to provide information on the health and dynamics of an urbanized open space system as well as how to improve conditions.

#### **Management Directive A.6 – Allow for future research opportunities for the Academic and Professional Scientific and Biologic Activities within the Preserve (Priority 2)**

**Implementation Measure A.6.1:** DPR will accept and review proposals for scientific research, monitoring, and habitat restoration and enhancement activities which are permitted within the MSCP Preserve. Proposed research activities will be subject to approval by DPR. All such activities must obtain any necessary permits and shall be consistent with this RMP. Additionally, any person conducting research of any kind within the Preserve shall obtain a Right-of-Entry Permit from DPR, which will outline the precautions to be taken to preserve and protect sensitive biological and cultural resources within the Preserve and require results of any research to be made available to DPR.

### **5.3 Vegetation Management Element (B)**

#### **5.3.1 Habitat Restoration**

**Management Directive B.1 – Restore degraded habitats to protect and enhance populations of rare and sensitive species through stabilization of eroded lands and strategic revegetation (*Priority 1*)**

**Implementation Measure B.1.1:** DPR will assess and determine the need for restoration activities within the Preserves. The need for restoration activities will be determined based on the results of habitat monitoring (as described in implementation measure A.1.1 above) and trail maintenance activities (as described in implementation measure C.5.3). Any proposed restoration activities should utilize current, accepted techniques and avoid/minimize impacts to sensitive species or native habitats. Any proposed revegetation activities should use only local native species. No active restoration is currently needed. Passive restoration (recovery from fire) is ongoing. Also see implementation measure D.4.1.

#### **5.3.2 Non-Native Plant Species Removal and Control**

**Management Directive B.2 – Reduce, control, or where feasible eradicate invasive, non-native flora known to be detrimental to native species and/or the local ecosystem (*Priority 1*)**

As described in Section 3.2.4 above, native and naturalized plant species primarily dominate the vegetation communities within the Preserve. However, patches of pampas grass and Mexican fan palms occur within Sycamore Canyon Creek. A volunteer group, Friends of Goodan Ranch and Sycamore Canyon Preserve routinely treat invasive nonnative plants such as pampas grass on the Preserves.

**Implementation Measure B.2.1:** Surveys and monitoring for invasive plant species surveys should be conducted to assess invasion or re-invasion by exotic plant species within the Preserves. These surveys should focus on areas where invasive, non-native plants have been detected in the past, but also look for new occurrences in the Preserves. Monitoring for the presence of invasive, non-native plants may be conducted in conjunction with habitat monitoring and general rare plant surveys (as described in implementation measures A.1.1 and A.1.2).

**Implementation Measure B.2.2:** DPR will coordinate with other agencies, non-profit organizations, and/or volunteer groups, such as Friends of Goodan Ranch and Sycamore Canyon Preserve, in order to seek funding and implement removal of pampas grass and Mexican fan palm within the Preserves.

**Implementation Measure B.2.3:** DPR park staff will routinely pull weeds or remove any non-native plant species in early stages of growth found along trails.

**Management Directive B.3 – Manage and minimize the expansion of invasive, non-native flora within the Preserve (Priority 2)**

**Implementation Measure B.3.1:** DPR will implement an educational program for visitors and adjacent residents to the Preserves in order to discourage introduction of invasive, non-native plants into the Preserves. Information provided will include identification of invasive plants harmful to the Preserve, and prevention methods. The program may also encourage residents to voluntarily remove invasive exotics from their landscaping. See also implementation measure D.7.1.

**Implementation Measure B.3.2:** DPR will implement an equestrian education program regarding the potential negative impacts to native ecosystems from the accumulation of non-point source pollutants (e.g., spread of non-native seeds) in staging areas and on frequently used trails. This could be accomplished through a signage program/brochures and interaction between rangers and trail users. Specific signage could state, “Don’t Plant a Pest! Feeding horses weed-free feed for at least 72 hours prior to entry helps preserve our natural environment”. See also implementation measure A.5.4.

**5.3.3 Fire prevention, control, and management**

There are no current fire management activities within the Preserves. Adequate emergency access roads are found within the Preserves in the form of existing trails/dirt roads.

**Management Directive B.4 – Provide for necessary fire management activities that are sensitive to natural and cultural resources protection (Priority 1)**

**Implementation Measure B.4.1:** The existing dirt roads/trails within the Preserves acting as access roads will be maintained annually to keep them fuel free. In addition, DPR will continue to coordinate with CAL FIRE to determine what improvements need to be made to make fire response feasible throughout the Preserves.

**Implementation Measure B.4.2:** Vegetation management is not a current need within the Preserves to address wildfire issues as vegetation is continuing to recover after the 2003 Cedar Fire. The need for vegetation management will be assessed through implementation measure A.1.1. DPR will coordinate with CAL FIRE to assess the future need to develop an integrated Vegetation Management Plan that will allow environmental documentation for strategic fuels management to be conducted if, and when, needed. A Vegetation Management Plan will also



identify likely locations for equipment staging areas and fire breaks, assisting fire fighting activities to avoid known cultural sites, if feasible.

#### **5.4 Public Use, Trails, and Recreation Element (C)**

##### **5.4.1 Public Access**

##### **Management Directive C.1 – Limit types of public uses to those that are appropriate for the site (*Priority 1*)**

***Implementation Measure C.1.1:*** The following public uses are prohibited in the Preserves and are currently specified on signs and/or trail maps. Park staff are responsible for enforcing these restrictions and may call the sheriff for legal enforcement, as appropriate.

- a. Off-road or cross-country vehicle and public off-highway recreational vehicle activity are considered incompatible uses in the MSCP preserve, and are therefore prohibited in the Preserve, except for law enforcement, Preserve management, and/or emergency purposes.
- b. Hunting or discharge of firearms is an incompatible use in the MSCP preserve, and is therefore prohibited in the Preserve, except for law enforcement, and/or emergency purposes.
- c. Poaching or collecting plant or animal species, archaeological or historical artifacts or fossils from the Preserve is generally prohibited; however, the County may authorize collecting upon approval for scientific research, revegetation or restoration purposes, or species recovery programs. In addition, impacts to historic features are prohibited except upon approval by the County.
- d. Fishing, swimming, and wading in rivers, streams, or creeks
- e. Camping (including homeless and itinerant worker camps)
- f. Feeding wildlife
- g. Domestic animals, except horses and leashed dogs
- h. Smoking
- i. Campfires/Open Flames

##### **Management Directive C.2 – Manage public access in sensitive biological and cultural resource areas within the Preserves (*Priority 1*)**

***Implementation Measure C.2.1:*** DPR has identified and mapped narrow endemics and critical populations, and all covered species populations in the Preserves so that these areas can be avoided and/or monitored. Updated information on sensitive species in relation to public access points will be

obtained during general wildlife and rare plant surveys in conjunction with habitat monitoring (as described in implementation measures A.1.1 and A.1.2).

**Implementation Measure C.2.2:** DPR will ensure that any new public-use trails are designed and constructed to avoid and/or minimize impacts to sensitive biological and cultural resource areas. However, no new public use trails are anticipated at this time.

**Implementation Measure C.2.3:** DPR has provided sufficient signage to clearly identify public access to the Preserve. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. The appropriate types of barriers to be used will be determined based on location, setting and use.

### **Management Directive C.3 – Provide appropriate interpretive and educational materials (Priority 2)**

Educational trail-side signage and educational kiosks are provided within the Preserves. In addition, signage provided at access points and on trails maps provides a form of education. Park staff assigned to the Preserves conduct interpretative walks or programs within the Preserves. During these interpretative walks or programs the ranger should distribute the “Living Close to Nature” brochure. This brochure discusses how to live in harmony with wildlife.

**Implementation Measure C.3.1:** DPR will share outreach and educational information and notify the public of volunteer opportunities that advance the management, monitoring, and stewardship resources available, and objectives of this RMP. This information will be provided on the DPR website, [www.sdparks.org](http://www.sdparks.org).

#### **5.4.2 Fencing and Gates**

Gates have been placed in the following locations within the Preserves (Figure 6): (1) two gates at the staging area located off of Sycamore Canyon Road; (2) access point at State Route 67; (3) southern border of Preserve; (4) two gates are located in the northeastern area of the Preserve associated with a private road crossing this area; (5) where Calle de Rob connects to an unofficial trail on Preserve; (6) off of southern trail blocking access to a private road that extends to the eastern border; (7) off of southern trail after entrance to private road; (8) two gates are located in the interior of the Preserve blocking public vehicle access to trails; (9) northwestern corner of Preserve; and (10) southwestern border of Preserve.

Fencing within the Preserves consists of: split-rail concrete fencing around the two staging areas and single-wire barbed wire perimeter fencing to delineate the border of the Preserves.

### **Management Directive C.4 – Install and maintain fencing and gates within the Preserves (*Priority 1*)**

**Implementation Measure C.4.1:** Park staff will install fencing and/or gates at points of unauthorized public access as appropriate. Points of unauthorized access will be identified in conjunction with trail monitoring activities (as described in implementation measure C.5.1).

**Implementation Measure C.4.2:** Park staff will regularly inspect and maintain all fencing and gates within the Preserves. Fencing segments and gates will be repaired or replaced as necessary.

### **5.4.3 Trail and Access Road Maintenance**

### **Management Directive C.5 – Properly maintain public access roads, staging areas and trails for user safety, to protect natural and cultural resources, and to provide high-quality user experiences (*Priority 1*)**

**Implementation Measure C.5.1:** Ranger staff will monitor public access roads, staging areas, and trails for degradation and off-trail access and use, and provide necessary repair/maintenance per the Community Trails Master Plan (County of San Diego 2005). See also implementation measure B.4.2.

**Implementation Measure C.5.2:** If temporary closure of a trail is deemed necessary for maintenance or remediation, temporary closure actions will be accompanied by educational support, and public notification through signs and public meeting announcements. An implementation schedule should be written by DPR Operations staff when maintenance or remediation is deemed necessary.

The trail will be posted with signage that indicates temporary closure and the primary reason for the temporary closure (e.g., erosion issues, and sensitive biological resource impacts). Finally, signs should provide contact information for anyone wishing to provide input on trail use or gain additional information regarding temporary closure of trails.

Once posted, the trails in need of maintenance should be blocked with A-frame barricades and/or caution tape. Enforcement of the temporary closure of a trail would require increased ranger patrols of these areas and investigations to determine if the barriers are effective.

**Implementation Measure C.5.3:** DPR will restore degraded habitats and reduce detrimental edge effects through maintenance and stabilization of trails and strategic revegetation. Measures to counter the effects of trail erosion may include the use of stone or wood cross-joints, edge plantings of native grasses,

and mulching of the trail per the Community Trails Master Plan (County of San Diego 2005). See also implementation measure B.1.1.

**Implementation Measure C.5.4:** If unauthorized trail formation is observed by ranger staff, those specific areas will be posted with clear signage reminding the public to remain on authorized trails. Also see management directive C.6.

#### 5.4.4 Signage and Lighting

##### *Signage*

**Management Directive C.6 – Develop, install, and maintain appropriate signage to effectively communicate important information to Preserve visitors (*Priority 1*)**

Signs educate, provide direction, and promote sensitive resources and enjoyment of natural areas. Types of signs within the Preserve may include those necessary to: protect sensitive biological and cultural resources (see A.5.4, B.3.2, and E.2.4); provide educational and interpretive information (see C.3.2 and E.3.1); explain rules of the Preserve (see C.1.2 and D.2.1); direct public access (see C.2.3 and C.5.4); and, provide Preserve operations information (see A.5.3 and C.5.2).

**Implementation Measure C.6.1:** Park rangers will regularly inspect and maintain all posted signs within the Preserve in good condition. Current posted signs include the following rules and regulations: Off-roading and ATV Vehicles Prohibited 41.130; Dogs on Leash At All Times 41.123(c); Weapons and Fireworks Prohibited 41.117; All Plants and Animals Are Protected 41.111 and 41.112; Campfire or Open Flames Prohibited 41.118; and Yield to Trail Users Obey Posted Speed Limit. In addition, signs warning of the presence of rattlesnakes and mountain lions are posted. Signs shall be kept free from vandalism and will be repaired or replaced as necessary.

##### *Lighting*

Artificial lighting adversely impacts habitat value of the Preserves, particularly for nocturnal species. Therefore, lighting should not be permitted in the Preserves except where essential for safety associated with the Ranger Station and the live-in volunteer pad. The Ranger Station is designed for low site impact and high energy efficiency (Leadership in Energy and Environmental Design [LEED] certified – Silver).



**Management Directive C.7 – Provide appropriate security lighting in association with Ranger Station and live-in volunteer pad (*Priority 2*)**

***Implementation Measure C.7.1:*** Low pressure sodium illumination sources or low energy alternatives will be used within the Preserves associated with the Ranger Station and live-in volunteer pad.

**5.5 Operations and Facility Maintenance Element (D)**

**5.5.1 Litter/Trash and Materials Storage**

**Management Directive D.1 – Maintain a safe and healthy environment for Preserve users (*Priority 1*)**

***Implementation Measure D.1.1:*** Trash receptacles will be provided and maintained at all staging areas. Trash receptacles should be designed to be secure from intrusion by wildlife species. Park staff will regularly empty trash receptacles at least twice a week or more/less as deemed necessary.

***Implementation Measure D.1.2:*** The permanent storage of hazardous and toxic materials within the Preserve will be prohibited. Any temporary storage must be in accordance with applicable regulations, and otherwise designed to minimize any potential impacts.

**Management Directive D.2 – Publicize and enforce regulations regarding littering/dumping (*Priority 1*)**

Lists of regulations are provided to users of the Preserves (e.g., posted on kiosks), clearly stating that littering within the Preserves is illegal, and will provide appropriate DPR contacts to report any littering observed.

***Implementation Measure D.2.2:*** Regulations regarding littering/dumping will be enforced by park rangers (County Code of Regulatory Ordinance Section 41.116). Penalties for littering and dumping will be imposed by law enforcement officers sufficient to prevent recurrence and reimburse costs to remove and dispose of debris, restore the area if needed, and pay for additional DPR staff time. Areas where dumping recurs will be evaluated for potential barrier placement. Additional monitoring and enforcement will be provided as needed.

**5.5.2 Hydrological Management**

Native habitats in the MSCP Preserve have evolved, in part, on the distribution and flow characteristics of water. MSCP Preserve property should be managed to maintain existing natural drainages and watershed and to restore or minimize changes to natural hydrological processes. Proposed structures and activities should be evaluated for effects on hydraulics, and remedial actions should be taken

as needed. Best Management Practices (BMPs) should be used both within and outside the preserve system to maintain water quality.

**Management Directive D.3 – Retain Sycamore Canyon Creek and its tributaries in their natural condition (Priority 1)**

**Implementation Measure D.3.1:** The trail crosses Sycamore Canyon Creek in several locations. Park staff will monitor trail use to make sure the integrity of the creek is not being affected.

**Management Directive D.4 – Install BMPs to prevent potential erosion of hillsides (Priority 2)**

**Implementation Measure D.4.2:** Monitor potential sites that may erode through implementation measures A.1.1 and C.5.3. If deemed necessary, install BMPs to stabilize slopes.

**Implementation Measure D.4.3:** DPR shall close both Preserves after heavy rains. DPR shall re-open the Preserves when authorized by the District Park Manager.

**5.5.3 Emergency, Safety and Police Services**

The Framework Management Plan explains that the interface between current and future urban development and MSCP preserve areas requires increased coordination between the preserve managers and agencies responsible for public safety. The MSCP preserve system, including Sycamore Canyon and Goodan Ranch Preserves, must accommodate access for emergency response and fire control and management. In the event that entry into the Preserves by law enforcement agencies is needed in the routine performance of their duties, use of existing roads and trails should be encouraged. In emergencies where there is a direct threat to public safety, the law enforcement agency should contact DPR whenever feasible.

Law enforcement and fire control agencies, the National Guard, the U.S. Citizenship and Immigration Service (USCIS), the Border Patrol, and organizations and agencies that respond to natural disasters shall be permitted to perform their activities within any preserve system subject to all applicable requirements of state and federal law.

**Management Directive D.4 – Maintain or increase the ability of emergency response personnel to deal with emergencies within the Preserves or vicinity (Priority 1)**

**Implementation Measure D.4.1:** Law enforcement officials will be invited to access the Preserves as necessary to enforce the law. If it becomes apparent

that extensive enforcement activities are necessary, DPR will coordinate with the applicable agencies to inform field personnel of how to minimize damage to particularly sensitive resources.

**Implementation Measure D.4.2:** All medical, rescue, and other emergency agencies will be allowed to access the Preserves to carry out operations necessary to protect the health, safety, and welfare of the public. Access issues are further discussed in implementation measure B.4.3.

**Management Directive D.5 – Provide for a safe recreational experience for visitors to the Preserves (Priority 1)**

**Implementation Measure D.5.1:** In the event of a natural disaster, such as a fire or flood, park ranger staff shall evacuate the Preserves and coordinate with the Emergency Operations Center. In addition, staff will coordinate with the local agency in charge of responding to the emergency and, if possible, assist where necessary.

**Implementation Measure D.5.2:** DPR shall implement the Site Emergency Plan for the Preserves that includes: description of the Preserves; site contacts; plan activation; evacuations; Site Emergency Response Team; Area Emergency Response; and emergency procedures (e.g., Africanized Honey Bees, Earthquake, Evacuation, Fire, Light Search and Rescue Guidelines, Medical and First Aid Emergencies).

**5.5.4 Adjacency Management Issues**

As described in Section 2.4.2, there is currently limited development immediately contiguous to the Preserves. The establishment of the MSCP preserve system does not include regulatory authority on properties adjacent to the Preserves; however, the County will require adjacent property owners to follow guidelines when planning and implementing uses and activities that can be regulated when located immediately adjacent to the site.

**Management Directive D.6 – Coordinate with adjacent Reserve land manager (Priority 1)**

**Implementation Measure D.6.1:** DPR will coordinate with Hanson Aggregates, Sycamore Estates LLC Open Space, MCAS Miramar, and future land owner of Fanita Ranch Open Space on an annual basis, or more regularly as needed, to ensure contiguous preserved land is managed consistently and in accordance with MSCP.

### **Management Directive D.7 - Enforce Preserve boundaries (*Priority 1*)**

***Implementation Measure D.7.1:*** DPR will enforce, prevent, and remove illegal intrusions into the Preserves (e.g., orchards, decks) on an annual basis, in addition to a complaint basis.

### **Management Directive D.8 – Educate residents of surrounding areas regarding adjacency issues (*Priority 2*)**

***Implementation Measure D.8.1:*** DPR will provide information on this RMP to residents adjacent to the Preserves to heighten environmental awareness, and inform residents of access, appropriate landscaping, construction or disturbance within the Preserve boundaries, pet intrusion, fire management, and other adjacency issues. This RMP will also be accessible on the DPR website and will thus be available to adjacent residents and to the general public.

## **5.6 Cultural Resources Element (E)**

The goal of this section of the RMP is long-term preservation, public interpretation of the cultural resources, and interaction with the bands in whose traditional tribal territory this preserve exists.

### **Management Directive E.1 – Identify, record, and assess the significance of all cultural resources within the Preserves in areas over 20% slope (*Priority 2*)**

***Implementation Measure E.1.1:*** Survey and inventory all Preserve lands over 20% slope for cultural resources. Cultural resources include historic structures, features, and landscaping, as well as historic and prehistoric archaeological sites, features, and artifacts. Inventories shall include a record search at the South Coastal Information Center, SDSU, and on-foot field survey, as well as pertinent archival and historical research.

Any cultural materials collected from the preserves will be curated at a qualified curation facility. No removal or modification of cultural resources shall occur without written approval by the Director of Parks and Recreation.

***Implementation Measure E.1.2:*** Assess each newly identified cultural site found within the Preserves for eligibility as a Historical Landmark, and to the California Resources Historic Register/National Register of Historic Places.

### **Management Directive E.2 – Preserve and protect significant cultural resources to ensure that sites are available for appropriate uses by present and future generations (*Priority 2*)**

***Implementation Measure E.2.1:*** Threats to the cultural resources from natural (e.g., fire, erosion, floods) or human-caused events shall be identified, and impacts prevented, reduced, eliminated, or adverse effects mitigated. Threats



could include movement of resources after a heavy rain/flood or due to erosion after a fire event. Fire suppression activities could also threaten resources. Avoidance or mitigation measures will be identified if impacts are caused by future projects within the Preserves.

**Implementation Measure E.2.2:** The condition and status of cultural resources shall be noted as part of routine monitoring activities conducted once a year and remedial measures shall be taken if damage is noted. Monitoring activities should also photo-document site conditions so that comparisons can be made over time. Any monitoring of sites in the Preserves should follow the guidelines found in the County of San Diego *Report Format and Content Requirements, Cultural Resources: Archaeological and Historical Resources* (2007).

All site location information will be kept strictly confidential, and will be available only for qualified cultural resource staff and land managers. Site locations will not be shown on maps or divulged to the public.

**Implementation Measure E.2.3:** All management activities within the Preserves including, but not limited to, trail construction and maintenance, placement of fencing and gates, and restoration of habitat will take into consideration potential impacts to cultural resources and shall avoid adverse impacts to any cultural resources to the maximum extent possible. No ground disturbing activities will be allowed on or in any cultural resource site within the Preserves until the impacts have been assessed. For those sites already evaluated and determined not significant, no further action is required.

If avoidance of significant sites is not feasible, appropriate mitigation measures will be established. Removal or disturbance of cultural resources shall not occur prior to completion of an approved mitigation program, such as data recovery or recordation. Preservation in place is the preferred mitigation measure.

**Implementation Measure E.2.4:** Signs shall be posted at all trail heads and throughout the Preserves to notify users that sensitive cultural resources within the Preserves cannot be damaged and that removal of any archaeological material is prohibited by law. Protection and preservation of cultural resources will comply with County of San Diego ordinances (Title 4; Public Property, Division 1; Parks and Beaches, Article 2, Section 41.113), and applicable state and federal laws, which will be enforced by park ranger staff. These signs shall be maintained as described above in implementation measure C.6.1.

The County will ensure that park ranger staff has sufficient training through the DPR Ranger Academy to actively protect archaeological sites from vandalism and other forms of human impact. If a Preserve user is suspected of vandalism to cultural resources, the appropriate law enforcement authorities shall be notified. More aggressive measures may be needed if vandalism and damage continue or increase.

**Management Directive E.3 – Promote the beneficial uses of cultural resources through interpretation and educational programs (*Priority 2*)**

***Implementation Measure E.3.1:*** Off-site, and when possible, on-site interpretive programs for Native American heritage, local and regional history, and prehistory will be developed for the Preserves. These may include lectures, walks, kiosks, signs, historic brochures, and displays, but will not include excavations, collecting of artifacts, or disclosure of confidential site locations unless an interpretive plan is developed and approved by the Director of Parks and Recreation. The plan will include supervision by a qualified archaeologist approved by the Director of Parks and Recreation. Martha's Grove trail offers several opportunities for both prehistoric and historic interpretation.

Multiple opportunities for public education as to the prehistory and history of both Preserves exist. The western spur of the Foster Truck Trail (CA-SDI-12821H), traverses and borders the northernmost portion of Sycamore Canyon Preserve. The development of scenic view points and interpretive signage along the existing historic road cut of Foster Truck Trail running along the northern boundary of the properties could explain not only the history of transportation in the region but also illustrate settlement in the area, directing viewers to the location of individual features and former structures like Stowe Road, Martha's Grove, Goodan Ranch, San Diego Aqueduct, and the adjacent Stowe schoolhouse to provide a broad, cultural landscape level view of prehistoric and historic land use history of the region.

**Management Directive E.4 – Honor Native American Heritage and promote Native American ceremonies, gathering, and cultural practices (*Priority 2*)**

***Implementation Measure E.4.1:*** Consultation with the Kumeyaay shall be conducted frequently in order to identify appropriate management of pre-contact and ethnographic cultural resources. The tribes will be encouraged to participate in evaluation, recordation, protection and preservation of cultural resources.

***Implementation Measure E.4.2:*** The County will open the Preserves to traditional uses by the Kumeyaay Indians. All activities by Native Americans in the Preserves shall be conducted with a Right-of-Entry permit specifically designed for the Preserves.

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